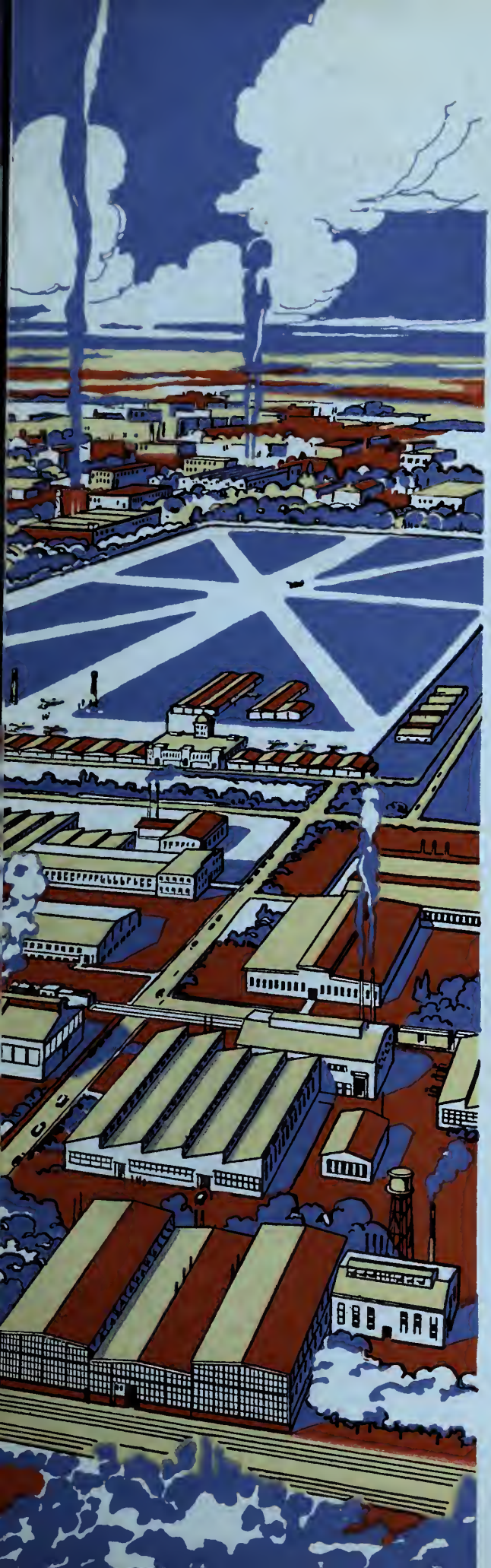


TRUSCON BUILDINGS

STANDARDIZED FOR ALL INDUSTRIAL REQUIREMENTS

CATALOGUE No. 220
EDITION 1930

TRUSCON STEEL COMPANY
YOUNGSTOWN, OHIO, U. S. A.
ENGINEERING AND SALES OFFICES IN PRINCIPAL CITIES

TRUSCON ENGINEERING AND SALES OFFICES

Albany, N. Y., 75 State Street
Altoona, Pa., 231 Central Trust Building
Atlanta, Ga., 601 Rhodes-Haverty Building
Baltimore, Md., 1507 Standard Oil Building
Birmingham, Ala., 513 North 21st Street
Boston, Mass., 260 Tremont Street
Brooklyn, N. Y., 26 Court Street
Buffalo, N. Y., 204 Sidway Building
Charleston, W. Va., 720 Kahawha Valley Building
Chattanooga, Tenn., 1222 James Building
Chicago, Ill., 228 North LaSalle Street
Cincinnati, Ohio, 505 Walnut Street
Cleveland, Ohio, 6100 Truscon Avenue
Columbus, Ohio, 1000-04 Atlas Building
Dallas, Texas, 413 Construction Industries Bldg.
Dayton, Ohio, 802 Harries Building
Denver, Colorado, 430 Cooper Building
Des Moines, Iowa, Hubbell Building
Detroit, Michigan, 615 Wayne Street
Erie, Pa., 1207 French Street
Fort Wayne, Ind., 424 Cal-Wayne Building
Grand Rapids, Mich., 301 McMullen Building
Greensboro, N. C., 830 Jefferson Standard Life Bldg.
Harrisburg, Pa., 600-2 North Second Street
Hartford, Conn., 983 Main Street
Hempstead, L. I., 250 Fulton Avenue
Houston, Texas, 1701 Oliver Street
Indianapolis, Ind., 812 Union Title Building
Jacksonville, Fla., 324 Hildebrandt Building
Kansas City, Mo., 611 Bryant Building
Los Angeles, Calif., 5480 East Slauson Avenue
Louisville, Ky., 621 Marion E. Taylor Building
Madison, Wis., 408 West Gorham Street
Memphis, Tenn., % Fisher Lime & Cement Co.
Milwaukee, Wis., 1200 Straus Building
Minneapolis, Minn., 611 Metropolitan Bank Bldg.
Moline, Ill., 202 Moline State Trust Building
Mount Vernon, N. Y., 9 West Prospect Avenue
Newark, N. J., 605 Broad Street
New Haven, Conn., 42 Church Street
New Orleans, La., 448 Canal Bank Building
New York, N. Y., 31 Union Square
Norfolk, Va., 22nd and Manteo Streets
Oklahoma City, Okla., 317-319 Magnolia Bldg.
Omaha, Neb., 901 World-Herald Building
Philadelphia, Pa., 1505 Race Street
Pittsburgh, Pa., 523-6 Grant Building
Portland, Oregon, 449-457 Kerby Street
Providence, R. I., 87 Weybosset Street
Richmond, Va., 15 North 6th Street
Rochester, N. Y., 614 Temple Building
Roswell, N. M., County Engineer's Office
St. Louis, Mo., 1304 Ambassador Building
Salt Lake City, Utah, 1526 S. West Temple Street
San Antonio, Texas, 901 Travis Building
San Francisco, Calif., 74 New Montgomery Street
Seattle, Wash., 310-11 Seaboard Building
Scranton, Pa., 547 Moosic Street
South Bend, Ind., 222 Christman Building
Syracuse, N. Y., 440 Gurney Building
Tampa, Fla., % J. W. Phillips & Co.
Toledo, Ohio, 312 Richardson Building
Tulsa, Okla., 315 Philcade Building
Washington, D. C., 801 Hill Building
Wichita, Kan., 808 Brown Building
Youngstown, Ohio, Albert Street

TRUSCON RAILROAD DEPARTMENT, YOUNGSTOWN, OHIO

PRESSED STEEL DIVISION, Offices and Plant, CLEVELAND, OHIO

FOREIGN TRADE DIVISION, 90 West Street, NEW YORK CITY

TRUSCON STEEL COMPANY OF CANADA, Limited, WALKERVILLE, ONT.

THE TRUSCON LABORATORIES, Offices and Plant, DETROIT, MICHIGAN

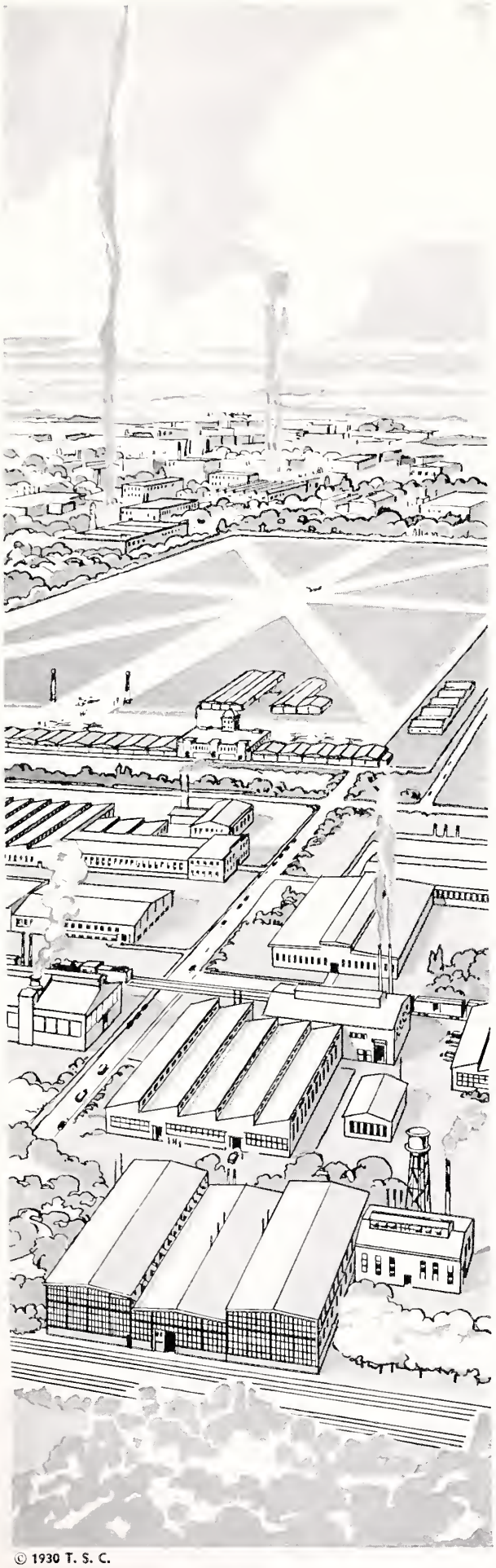
(For Waterproofings, Floor Hardeners, Industrial Maintenance Products and Cement Roofing Tile)

TRUSCON WAREHOUSES

Baltimore, Md.
Birmingham, Ala.
Boston, Mass.
Buffalo, N. Y.
Chicago, Ill.
Cincinnati, Ohio
Cleveland, Ohio
Dallas, Texas
Detroit, Mich.
Garden City, L. I.
Greensboro, N. C.
Houston, Texas
Indianapolis, Ind.
Jacksonville, Fla.
Kansas City, Mo.
Long Island City, N. Y.
Los Angeles, Calif.
Milwaukee, Wis.
Mount Vernon, N.Y.
Newark, N. J.
New York, N. Y.
Norfolk, Va.
Omaha, Neb.
Philadelphia, Pa.
Portland, Oregon
San Francisco, Calif.
St. Louis, Mo.
St. Paul, Minn.
Youngstown, Ohio

Executive Offices and Main Plant:
YOUNGSTOWN, OHIO
Factories: Cleveland, Detroit, Los Angeles, Walkerville, Japan

CATALOGUE No. 220
EDITION 1930



TRUSCON BUILDINGS

STANDARDIZED FOR ALL INDUSTRIAL REQUIREMENTS

New Design
Better Appearance
Substantial × Permanent

TRUSCON STEEL COMPANY
MAIN OFFICE AND PLANT
YOUNGSTOWN, OHIO
FACTORIES IN: DETROIT, CLEVELAND, LOS ANGELES, WALKERVILLE AND JAPAN
ENGINEERING AND SALES OFFICES IN PRINCIPAL CITIES

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STANDARD BUILDING UNITS

STANDARDIZATION is the keynote of modern industrial progress that has reduced production costs and given the buyer greater values. This principle, combined with individuality of design, has been adapted to the construction industry by Truscon with its Standardized Buildings.

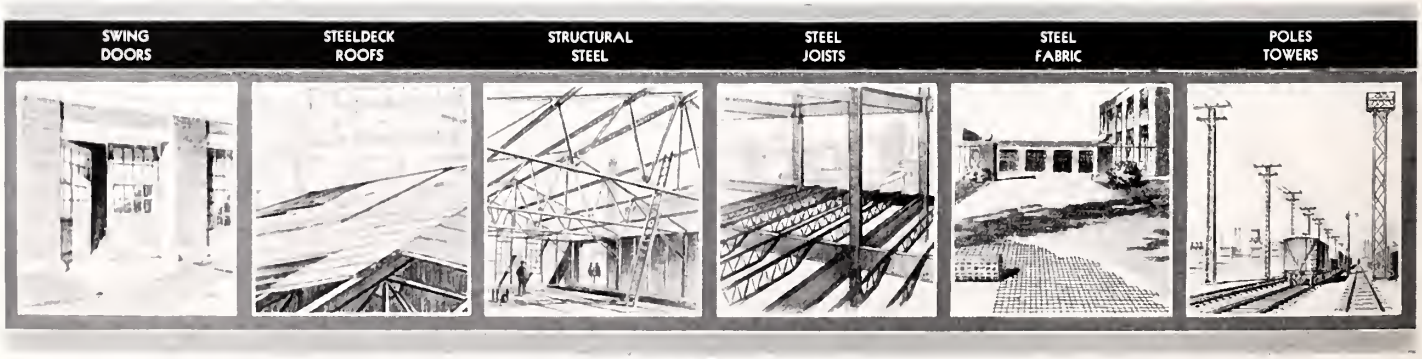
Their success is due to their fitness in meeting exact requirements for one or two-story buildings, to their fire protection and permanence, to their ease and speed of erection, to their versatility in enlargement, dismantling and re-erection, and to their investment value and economical cost.

In order to insure the efficient application of these buildings to industrial use, Truscon maintains a competent engineering organization throughout the country. Truscon engineers co-operate fully with owners, contractors and architects.

Twenty-six years of construction and building experience, combined with an intimate knowledge of all kinds of building materials gained by manufacturing them, particularly equips the Truscon organization and its sixty-five engineering and sales offices to render a complete building service.

You are invited to call on this service department for preliminary estimates on which to base appropriation, for investigations, studied reports, complete suggestions, and definite quotations.

TRUSCON STEEL COMPANY
YOUNGSTOWN, OHIO



STANDARD BUILDING PRODUCTS

FOR any permanent building, no matter what the nature of its construction, Truscon furnishes a complete line of steel building products which insure complete satisfaction and economy.

You secure everything you require from one source with resultant savings in freight and handling charges. You avoid the delays and expense of dealing with several unrelated sources of supply. You are assured of high quality products perfected by over a quarter of a century's experience in hundreds of thousands of buildings everywhere in the United States and foreign countries.

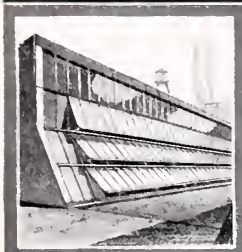
You purchase products which are backed by the superior manufacturing facilities and large resources of the world's greatest manufacturer of permanent building products. Prompt deliveries are insured by a complete chain of well stocked Truscon warehouses located in carefully selected centers throughout the country and by a large building supply dealer organization.

Truscon Steel Building Products in large standardized units are combined in innumerable ways to form Standardized Buildings of individual design. The details harmonize with one another eliminating divided responsibility. All sizes, types and arrangements of buildings are available.

Merely write and tell us about your building problem and it will receive immediate attention. Your inquiry will bring back useful information and involves no obligation to you.

TRUSCON STEEL COMPANY
YOUNGSTOWN, OHIO

CONTINUOUS WINDOWS | PIVOTED WINDOWS | PROJECTED WINDOWS | DOUBLE-HUNG WINDOWS | FOLDING DOORS | HANGAR DOORS



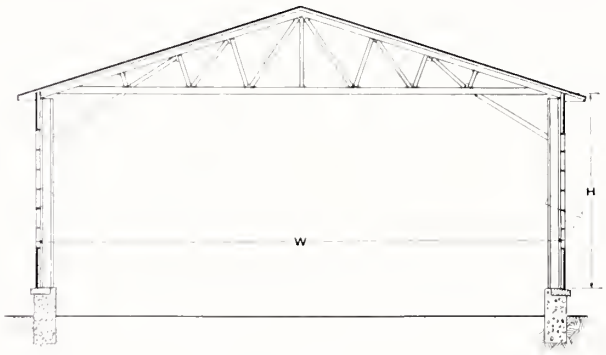
SERIES "A" (PITCHED ROOF TYPES)

With Interlocking Plate Type Roof or Steeldeck Roof Insulated and Waterproofed

Standard Curb Heights: 8″, 16″, 24″

Standard Lantern: 12′-0″ wide, 6′-10″ high

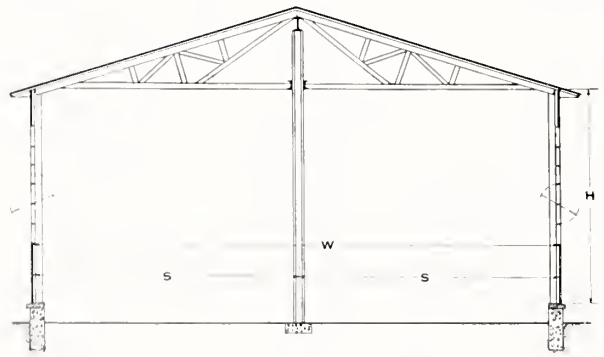
Lengths: Multiples of 2′–0″



TYPE 1 and 1-S

Series "A"—Type 1 and 1-S

Standard Heights of Sidewalls	Standard Widths of Buildings
H	W
8′-1″, 10′-9″, 13′-5″ 16′-1″, 18′-9″, 21′-5″ or greater heights in multiples of 2′-8″	8′-0″, 12′-0″, 16′-0″, 20′-0″, 24′-0″, 28′-0″, 32′-0″, 40′-0″, 50′-0″, 60′-0″, 70′-0″, 80′-0″, 90′-0″, 100′-0″



TYPE 2

Series "A"—Type 2

Standard Heights of Sidewalls	Standard Width of Building	Width of Bays
H	W	S
8′-1″, 10′-9″	40′-0″	20′-0″
13′-5″, 16′-1″	48′-0″	24′-0″
18′-9″, 21′-5″	50′-0″	25′-0″
or greater heights in	56′-0″	28′-0″
multiples of 2′-8″	60′-0″	30′-0″

SERIES "A" (PITCHED ROOF TYPES)

With Interlocking Plate Type Roof or Steeldeck Roof Insulated and Waterproofed

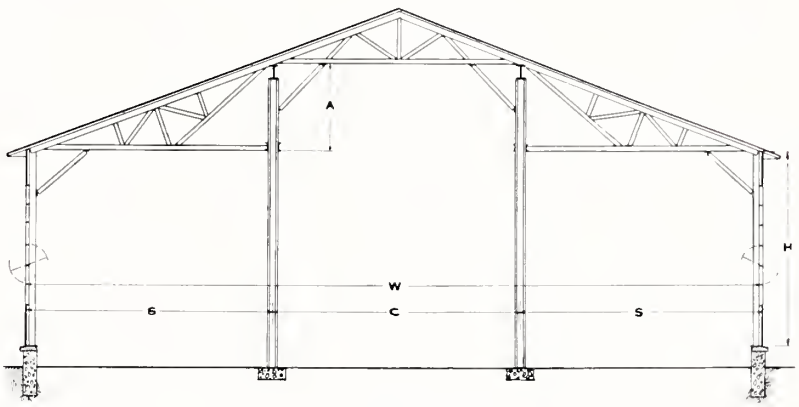
Standard Curb Heights: 8″, 16″, 24″

Standard Lantern: 12′-0″ wide, 6′-10″ high

Lengths: Multiples of 2′–0″

Series "A"—Type 3

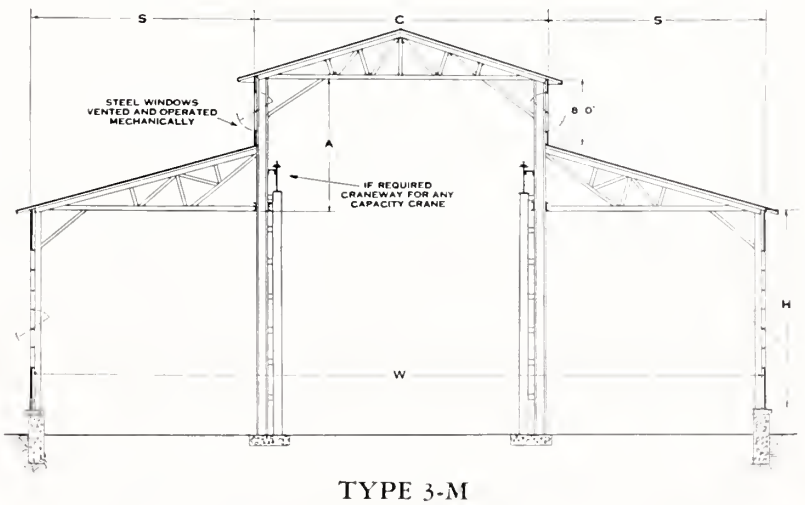
Standard Heights of Sidewalls	Standard Width of Building	Width of Side Bays	Width of Center Bay	Additional Head Room in Center Bay
H	W	S	C	A
	56′-0″	16′-0″	24′-0″	5′-4″
	60′-0″	16′-0″	28′-0″	5′-4″
	60′-0″	20′-0″	20′-0″	6′-8″
	64′-0″	20′-0″	24′-0″	6′-8″
8′-1″, 10′-9″	68′-0″	20′-0″	28′-0″	6′-8″
13′-5″, 16′-1″	72′-0″	24′-0″	24′-0″	8′-0″
18′-9″, 21′-5″	76′-0″	24′-0″	28′-0″	8′-0″
	80′-0″	24′-0″	32′-0″	8′-0″
or greater	80′-0″	28′-0″	24′-0″	9′-4″
heights in	84′-0″	28′-0″	28′-0″	9′-4″
multiples	88′-0″	24′-0″	40′-0″	8′-0″
of 2′-8″	88′-0″	28′-0″	32′-0″	9′-4″
	96′-0″	28′-0″	40′-0″	9′-4″
	98′-0″	24′-0″	50′-0″	8′-0″
	106′-0″	28′-0″	50′-0″	9′-4″
	108′-0″	24′-0″	60′-0″	8′-0″
	116′-0″	28′-0″	60′-0″	9′-4″



TYPE 3

Series "A"—Type 3-M

Standard Heights of Sidewalls	Standard Widths of Buildings	Width of Side Bays	Width of Center Bay	Additional Head Room
H	W	S	C	A
	60′-0″	20′-0″	20′-0″	14′-8″
	64′-0″	20′-0″	24′-0″	14′-8″
	68′-0″	20′-0″	28′-0″	14′-8″
	72′-0″	20′-0″	32′-0″	14′-8″
8′-1″, 10′-9″	72′-0″	24′-0″	24′-0″	16′-0″
13′-5″, 16′-1″	76′-0″	24′-0″	28′-0″	16′-0″
18′-9″, 21′-5″	80′-0″	24′-0″	32′-0″	16′-0″
	80′-0″	20′-0″	40′-0″	14′-8″
or greater	80′-0″	28′-0″	24′-0″	17′-4″
heights in	84′-0″	28′-0″	28′-0″	17′-4″
multiples	88′-0″	24′-0″	40′-0″	16′-0″
of 2′-8″	90′-0″	20′-0″	50′-0″	14′-8″
	96′-0″	28′-0″	40′-0″	17′-4″
	98′-0″	24′-0″	50′-0″	16′-0″
	100′-0″	20′-0″	60′-0″	14′-8″
	106′-0″	28′-0″	50′-0″	17′-4″
	108′-0″	24′-0″	60′-0″	16′-0″
	116′-0″	28′-0″	60′-0″	17′-4″



TYPE 3-M

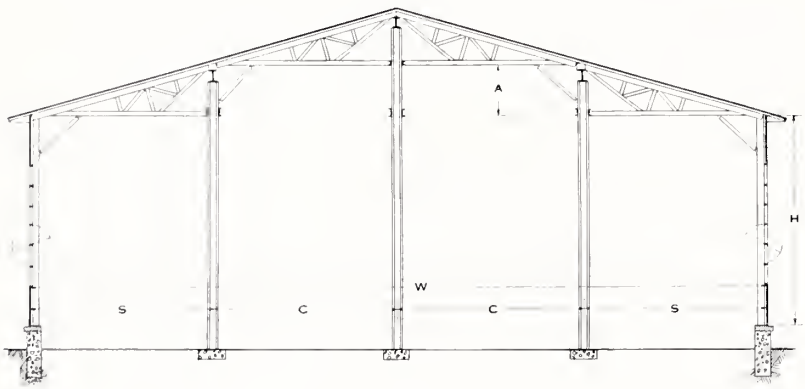
SERIES "A" (PITCHED ROOF TYPES)

With Interlocking Plate Type Roof or Steeldeck Roof Insulated and Waterproofed

Standard Curb Heights: 8″, 16″, 24″

Standard Lantern: 12′-0″ wide, 6′-10″ high

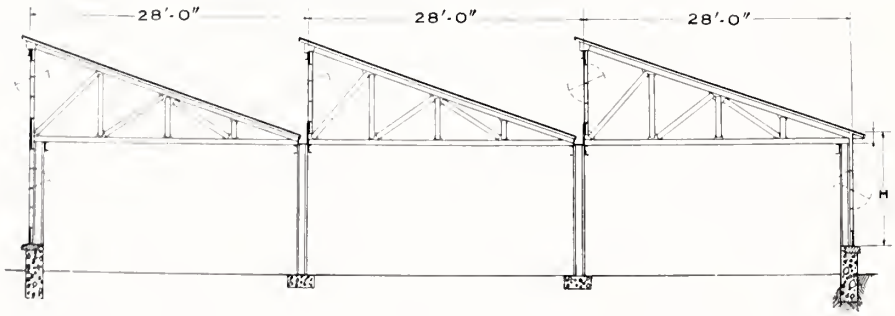
Lengths: Multiples of 2′–0″



TYPE 4

Series "A"—Type 4

Standard Heights of Sidewalls	Standard Width of Building	Width of Side Bays	Width of Center Bays	Additional Head Room in Center Bays
H	W	S	C	A
8′-1″, 10′-9″ 13′-5″, 16′-1″ 18′-9″, 21′-5″ or greater heights in multiples of 2′–8″	80′-0″ 100′-0″ 112′-0″	20′-0″ 25′-0″ 28′-0″	20′-0″ 25′-0″ 28′-0″	6′-8″ 8′-4″ 9′-4″



SAWTOOTH TYPE

Series "A"—Sawtooth Type

Standard Heights of Sidewalls	Standard Widths of Buildings
8′-1″, 10′-9″ 13′-5″, 16′-1″ 18′-9″, 21′-5″ or greater heights in multiples of 2′-8″	Any multiple of 28′-0″

SERIES "A" (PITCHED ROOF TYPES)

SPECIFICATIONS

ALL DETAILS of design and construction shall be in accordance with plans and specifications prepared and furnished by the Truscon Steel Company, Youngstown, Ohio.

Columns—Spaced 16′-0″ on centers lengthwise of building; variation for total length in end bays only.

Trusses—Designed to support roof deck and standard roof loads.

Curtain Wall—Solid panels of 20 gage copper steel, or brick, concrete, stucco or masonry.

Side Walls—Solid steel panels or daylight panels used in conjunction with steel doors—or walls entirely of steel windows.

Steel Windows—Truscon Steel Windows, Center-Pivoted Type, controlled, when desired with Truscon Mechanical Operators.

Steel Doors—Standard swing or slide types, or doors for large openings of seamless tubular construction.

Roof Deck—Truscon Ferrodeck of 20 gage steel plates supported on 18 gage subpurlins—insulated to any degree and waterproofed with standard roofing. Or Interlocking Plate Type Steel Roof without waterproofing. Standard roof pitch is 4″ in 12″.

Insulation—Standard insulation of required amount applied in accordance with manufacturer's specifications.

Waterproofing—Standard roofing of approved type applied in accordance with manufacturer's specifications and guarantee.

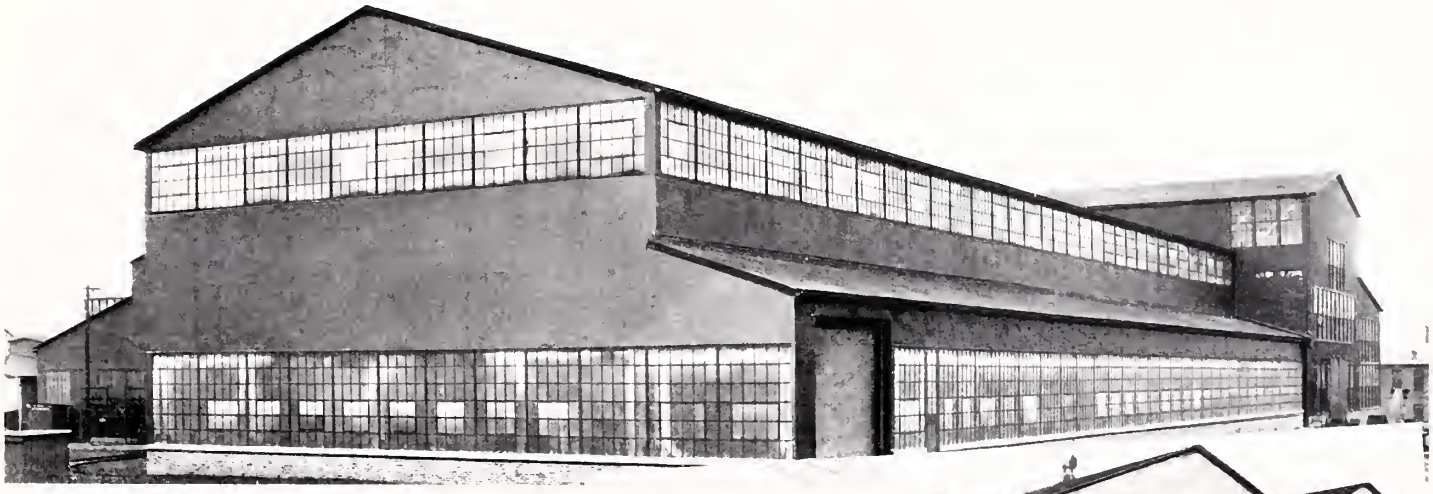
**Foundations*—Concrete, brick, masonry or temporary supports of wood posts and wood sills.

**Floors*—Cement floors, wood flooring, wood blocks, composition, cinder or earth as desired.

Special Conditions—Special designs furnished to meet conditions not covered by standard construction.

*Not included in Truscon Building Contract.

All Series "A" Buildings are furnished with Interlocking Plate Type Roof, or Steeldeck Roof insulated and waterproofed.



Above:
Chambersburg Engineering Company
Chambersburg, Pa.

Below:
Great Lakes Corporation
Richmond, Ind.

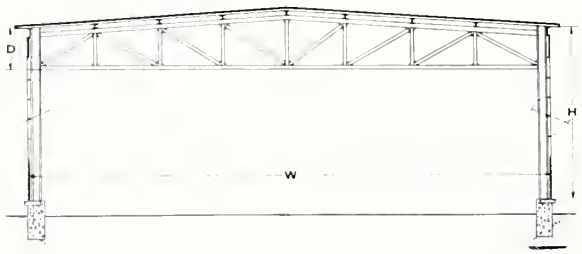
SERIES "B" (FLAT ROOF TYPES)

With Steeldeck Roof Insulated and Waterproofed

Standard Curb Heights: 8″, 16″, 24″

Standard Lantern: 16′–0″ wide, 8′–0″ high

Lengths: Multiples of 2′–0″

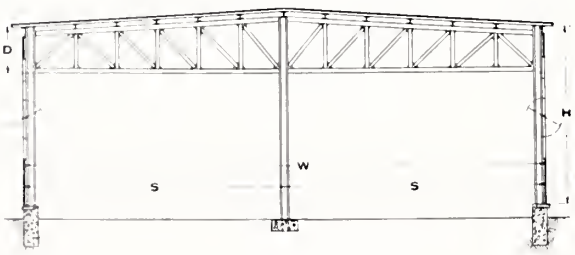


TYPE 1

Series "B"—Type 1

Standard Heights of Sidewalls	Standard Width of Building	Distance from Bottom of Truss to Eave Line
H	W	D
11′–5″, 14′–1″, 16′–9″ 19′–5″, 22′–1″, 24′–9″ 27′–5″, 30′–1″, 32′–9″ or greater heights in multiples of 2′–8″	20′–0″	*1′– 5½″
	24′–0″	*1′– 5½″
	28′–0″	*1′– 7½″
	30′–0″	*1′– 9½″
	32′–0″	*1′– 9½″
	36′–0″	3′– 4″
	40′–0″	4′– 2″
	44′–0″	4′– 2″
	48′–0″	4′– 2″
	50′–0″	4′–11″
	52′–0″	4′–11″
	56′–0″	4′–11″
	60′–0″	6′– 0″
	70′–0″	6′– 6″
	80′–0″	7′– 0″
	90′–0″	8′– 0″
	100′–0″	9′– 0″

*In these spans rafter beams are used instead of trusses.



TYPE 2

Series "B"—Type 2

Standard Heights of Sidewalls	Standard Width of Building	Width of Bays	Distance from Bottom of Truss to Eave Line
H	W	S	D
11′–5″, 14′–1″, 16′–9″ 19′–5″, 22′–1″, 24′–9″ 27′–5″, 30′–1″, 32′–9″ or greater heights in multiples of 2′–8″	40′–0″	20′–0″	*1′– 5½″
	48′–0″	24′–0″	*1′– 7½″
	56′–0″	28′–0″	*1′– 9½″
	60′–0″	30′–0″	*1′–11½″
	64′–0″	32′–0″	*1′–11½″
	80′–0″	40′–0″	4′– 2″
	100′–0″	50′–0″	4′–11″
	120′–0″	60′–0″	6′– 0″

*In these spans rafter beams are used instead of trusses.

SERIES "B" (FLAT ROOF TYPES)

With Steeldeck Roof Insulated and Waterproofed

Standard Curb Heights: 8″, 16″, 24″

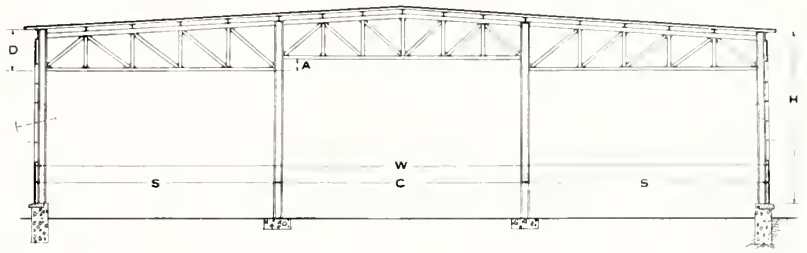
Standard Lantern: 16′–0″ wide, 8′–0″ high

Lengths: Multiples of 2′–0″

Series "B"—Type 3

Standard Heights of Sidewalls	Standard Width of Building	Width of Side Bays	Width of Center Bay	Distance from Bottom of Truss or Beam to Eave Line	Additional Head Room in Center Bay
H	W	S	C	D	A
	60′-0″	20′-8 ½″	18′-7″	1′-5 ½″	0′-10″
	64′-0″	20′-8 ½″	22′-7″	1′-5 ½″	0′-10″
	68′-0″	20′-8 ½″	26′-7″	1′-5 ½″	0′-8″
	72′-0″	20′-8 ½″	30′-7″	1′-5 ½″	0′-6″
	72′-0″	24′-8 ½″	22′-7″	1′-7 ½″	1′-2″
	76′-0″	24′-8 ½″	26′-7″	1′-7 ½″	1′-0″
11′-5″,14′-1″	80′-0″	24′-8 ½″	30′-7″	1′-7 ½″	0′-10″
16′-9″,19′-5″	90′-0″	28′-8 ½″	22′-7″	1′-9 ½″	1′-6″
22′-1″,24′-9″	94′-0″	28′-8 ½″	26′-7″	1′-9 ½″	1′-4″
27′-5″,30′-1″	98′-0″	28′-8 ½″	30′-7″	1′-9 ½″	1′-2″
32′-9″	92′-0″	32′-8 ½″	26′-7″	1′-11 ½″	1′-8″
or greater	96′-0″	32′-8 ½″	30′-7″	1′-11 ½″	1′-6″
heights in	116′-0″	40′-8 ½″	34′-7″	4′-2″	2′-6″
multiples	120′-0″	40′-8 ½″	38′-7″	4′-2″	1′-8″
of 2′-8″	130′-0″	40′-8 ½″	48′-7″	4′-2″	0′-11″
	140′-0″	40′-8 ½″	58′-7″	4′-2″	*0′-2″
	140′-0″	50′-8 ½″	38′-7″	4′-11″	2′-10″*
	150′-0″	50′-8 ½″	48′-7″	4′-11″	2′-1″
	160′-0″	50′-8 ½″	58′-7″	4′-11″	1′-0″
	160′-0″	60′-8 ½″	38′-7″	6′-0″	4′-4″
	170′-0″	60′-8 ½″	48′-7″	6′-0″	3′-7″
	180′-0″	60′-8 ½″	58′-7″	6′-0″	2′-6″

*In this building bottom of center bay truss is 2″ below bottom at side bay truss.
Where distance "S" or "C" is 32′–8 ½″ or less, rafter beams are used instead of trusses.

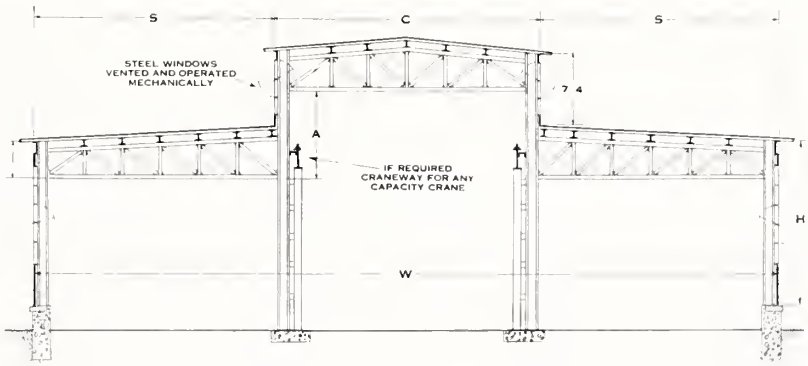


TYPE 3

Series "B"—Type 3-M

Standard Heights of Sidewalls	Standard Width of Building	Width of Side Bays	Width of Center Bay	Distance from Bottom of Truss or Beam to Eave Line	Additional Head Room in Center Bay
H	W	S	C	D	A
	60′-0″	20′-0″	20′-0″	1′-5 ½″	8′-2″
	64′-0″	20′-0″	24′-0″	1′-5 ½″	8′-2″
	68′-0″	20′-0″	28′-0″	1′-5 ½″	8′-0″
	72′-0″	20′-0″	32′-0″	1′-5 ½″	7′-10″
	72′-0″	24′-0″	24′-0″	1′-7 ½″	8′-6″
	76′-0″	24′-0″	28′-0″	1′-7 ½″	8′-4″
	80′-0″	24′-0″	32′-0″	1′-7 ½″	8′-2″
	80′-0″	28′-0″	24′-0″	1′-9 ½″	8′-10″
11′-5″,14′-1″	84′-0″	28′-0″	28′-0″	1′-9 ½″	8′-8″
16′-9″,19′-5″	88′-0″	28′-0″	32′-0″	1′-9 ½″	8′-6″
22′-1″,24′-9″	92′-0″	32′-0″	28′-0″	1′-11 ½″	9′-0″
27′-5″,30′-1″	96′-0″	32′-0″	32′-0″	1′-11 ½″	8′-10″
32′-9″	80′-0″	20′-0″	40′-0″	1′-5 ½″	5′-5 ½″
or greater	90′-0″	20′-0″	50′-0″	1′-5 ½″	4′-8 ½″
heights in	100′-0″	20′-0″	60′-0″	1′-5 ½″	3′-7 ½″
multiples	88′-0″	24′-0″	40′-0″	1′-7 ½″	5′-9 ½″
of 2′-8″	98′-0″	24′-0″	50′-0″	1′-7 ½″	5′-0 ½″
	108′-0″	24′-0″	60′-0″	1′-7 ½″	3′-11 ½″
	96′-0″	28′-0″	40′-0″	1′-9 ½″	6′-1 ½″
	106′-0″	28′-0″	50′-0″	1′-9 ½″	5′-4 ½″
	116′-0″	28′-0″	60′-0″	1′-9 ½″	4′-3 ½″
	104′-0″	32′-0″	40′-0″	1′-11 ½″	6′-5 ½″
	114′-0″	32′-0″	50′-0″	1′-11 ½″	5′-8 ½″
	124′-0″	32′-0″	60′-0″	1′-11 ½″	4′-7 ½″
	112′-0″	40′-0″	32′-0″	4′-2″	11′-4 ½″
	132′-0″	50′-0″	32′-0″	4′-11″	12′-6 ½″

Where distance "S" or "C" is 32′–0″ or less, rafter beams are used instead of trusses.



TYPE 3-M

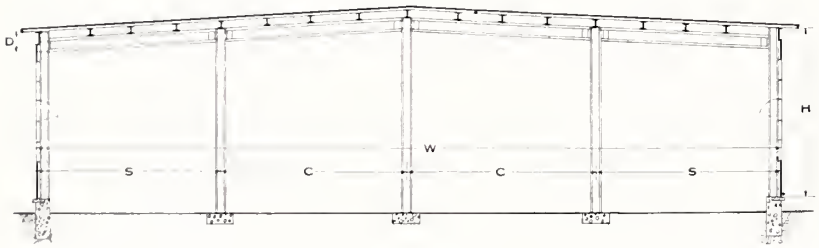
SERIES "B" (FLAT ROOF TYPES)

With Steeldeck Roof Insulated and Waterproofed

Standard Curb Heights: 8″, 16″, 24″

Standard Lantern: 16′–0″ wide, 8′–0″ high

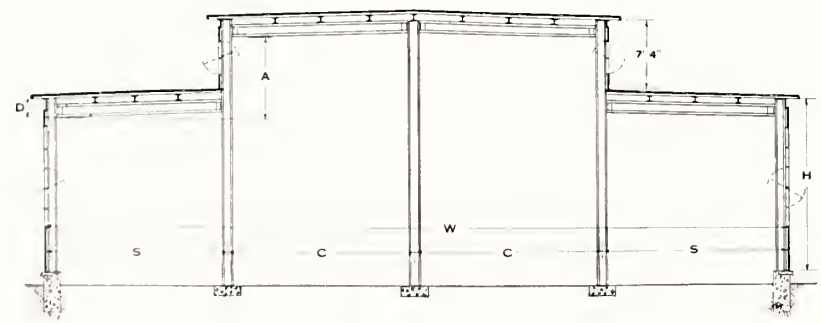
Lengths: Multiples of 2′–0″



TYPE 4

Series "B"—Type 4

Standard Heights of Sidewalls	Standard Width of Building	Width of Side Bays	Width of Center Bays	Distance from Bottom of Beam to Eave Line
H	W	S	C	D
	80′-0″	20′-8 ½″	19′-3 ½″	1′-5 ½″
	88′-0″	20′-8 ½″	23′-3 ½″	1′-5 ½″
11′-5″, 14′-1″, 16′-9″	96′-0″	24′-8 ½″	23′-3 ½″	1′-7 ½″
19′-5″, 22′-1″, 24′-9″	96′-0″	20′-8 ½″	27′-3 ½″	1′-5 ½″
27′-5″, 30′-1″, 32′-9″	100′-0″	20′-8 ½″	29′-3 ½″	1′-5 ½″
or greater heights in	104′-0″	24′-8 ½″	27′-3 ½″	1′-7 ½″
multiples of 2′-8″	108′-0″	24′-8 ½″	29′-3 ½″	1′-7 ½″
	112′-0″	28′-8 ½″	27′-3 ½″	1′-9 ½″
	116′-0″	28′-8 ½″	29′-3 ½″	1′-9 ½″
	120′-0″	30′-8 ½″	29′-3 ½″	1′-11 ½″



TYPE 4-M

Series "B"—Type 4-M

Standard Heights of Sidewalls	Standard Width of Building	Width of Side Bays	Width of Center Bays	Additional Head Room in Center Bays	Distance from Bottom of Beam to Eave Line
H	W	S	C	A	D
11′-5″, 14′-1″	80′-0″	20′-8 ½″	19′-3 ½″	8′-2″	1′-5 ½″
16′-9″, 19′-5″	88′-0″	20′-8 ½″	23′-3 ½″	8′-0″	1′-5 ½″
22′-1″, 24′-9″	96′-0″	24′-8 ½″	23′-3 ½″	8′-4″	1′-7 ½″
27′-5″, 30′-1″	100′-0″	20′-8 ½″	29′-3 ½″	7′-8″	1′-5 ½″
32′-9″	104′-0″	24′-8 ½″	27′-3 ½″	8′-2″	1′-7 ½″
or greater	108′-0″	24′-8 ½″	29′-3 ½″	8′-0″	1′-7 ½″
heights in	112′-0″	28′-8 ½″	27′-3 ½″	8′-6″	1′-9 ½″
multiples	116′-0″	28′-8 ½″	29′-3 ½″	8′-4″	1′-9 ½″
of 2′-8″	120′-0″	30′-8 ½″	29′-3 ½″	8′-7″	1′-11 ½″

SERIES "B" (FLAT ROOF TYPES)

SPECIFICATIONS

ALL DETAILS of design and construction shall be in accordance with plans and specifications prepared and furnished by the Truscon Steel Company, Youngstown, Ohio.

Columns—Spaced 20′–0″ on centers lengthwise of buildings; variation for total length in end bays only.

Trusses—Designed to support roof deck and standard roof loads.

Curtain Wall—Solid panels of 20 gage copper steel, or brick, concrete, stucco or masonry.

Side Walls—Solid steel panels or daylight panels used in conjunction with steel doors—or walls entirely of steel windows.

Steel Windows—Truscon Steel Windows, Center-Pivoted Type, controlled, when desired with Truscon Mechanical Operators.

Steel Doors—Standard swing or slide types, or doors for large openings of seamless tubular construction.

Roof Deck—Truscon Ferrodeck of 20 gage steel plates supported on 18 gage subpurlins—insulated to any degree and waterproofed with standard roofing. Standard roof pitch is ½″ in 12″.

Insulation—Standard insulation of desired amount applied in accordance with manufacturer's specifications.

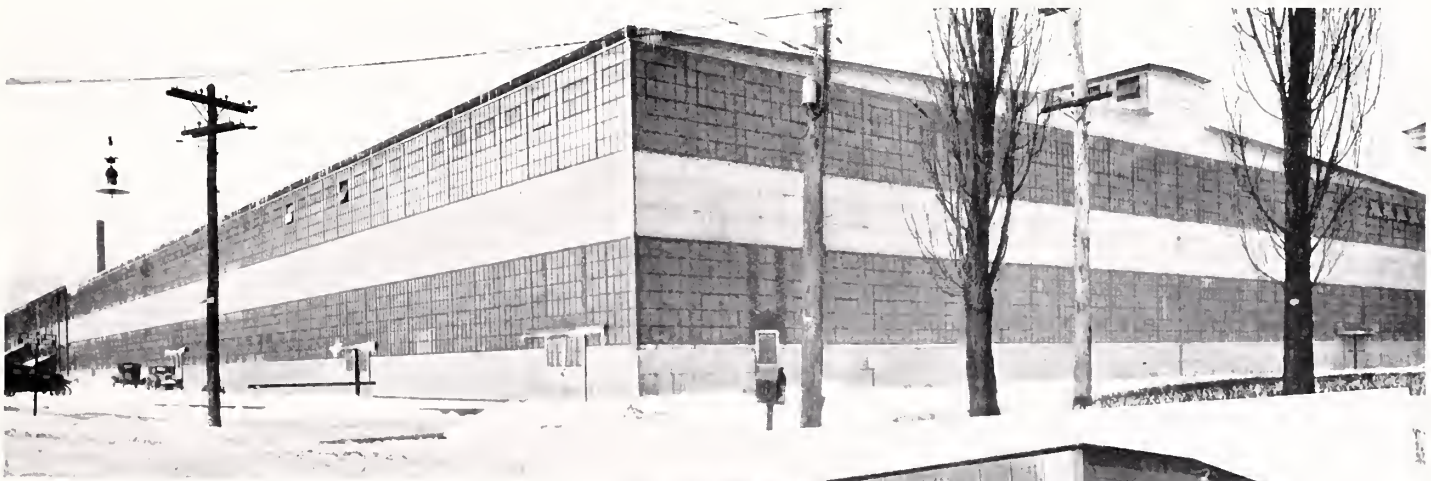
Waterproofing—Standard roofing of approved type applied in accordance with manufacturer's specifications and guarantee.

**Foundations*—Concrete, brick, masonry or temporary supports of wood posts and wood sills.

**Floors*—Cement floors, wood flooring, wood blocks, composition, cinder or earth as desired.

Special Conditions—Special designs furnished to meet conditions not covered by standard construction.

*Not included in Truscon Building Contract.



Above:
Danville Structural Steel Company
Danville, Pa.

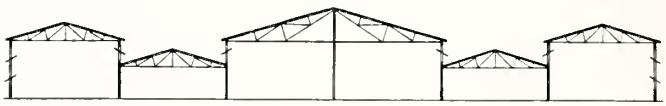
Below:
Atlanta Aircraft Corporation
Atlanta, Ga.

Series "A" and "B" Types in Combination

THE Series "A" and Series "B" Types of Truscon Buildings can be variously grouped. These groups can be any length and any width; considerable variation in height is possible. Standardization permits indefinite extension. For this reason group plans need be completed only as growing needs warrant from time to time.

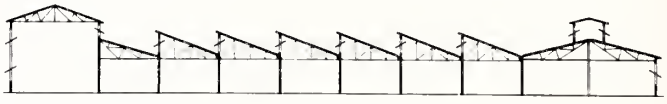
LANTERNS may be used for additional daylighting and ventilation purposes. Canopies and Lean-tos can be added and may be removed again to make way for extensions. The Truscon plan is therefore flexible, and adapts itself to both present individual needs and possible future building requirements.

SERIES "A"
Types 3-M and Sawtooth



SERIES "A"
Type 1 and Type 2

SERIES "A"
Types 3-M and Sawtooth



SERIES "A"
Type 1 and Lean-to
Sawtooth and Type 2 *(with Lantern)*

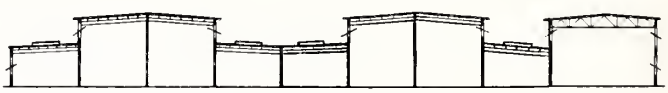
SERIES "A"
Type 1, Type 4 *(with Lantern)*
and Type 3 *(with Lantern)*

SERIES "A"
Type 1 *(with Lantern)* and Lean-to, and Sawtooth

SERIES "B"
Type 1 and Lean-to
Type 1 *(with Lantern)*

SERIES "B"
Type 1 *(with and without Lantern)*

SERIES "B"
Type 1, Type 1 *(with Lantern)* and Type 2



SERIES "B"
Type 4-M *(with Skylight)* and Type 1

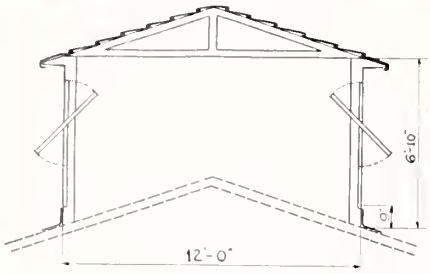
SERIES "B"
Type 1 and Lean-to

SERIES "A"
Sawtooth Type

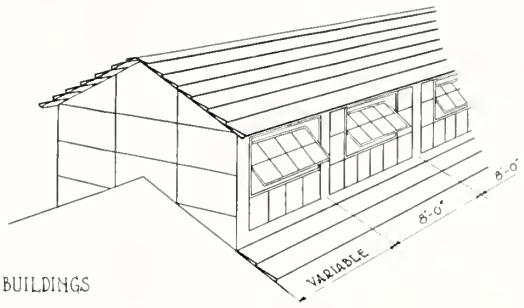
SERIES "B"
Type 3-M, Type 1 and Lean-to

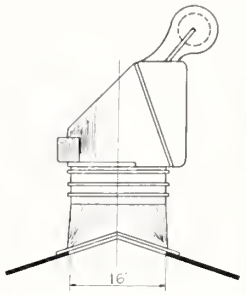
SERIES "A"
Sawtooth Type

Details of Standardized Accessories

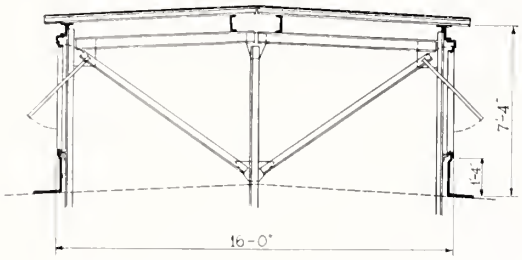


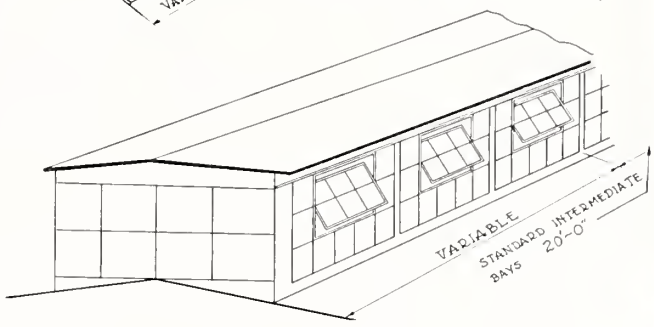
LANTERN FOR SERIES 'A' BUILDINGS



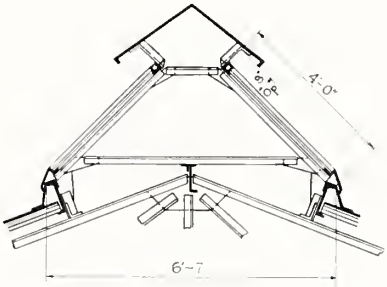


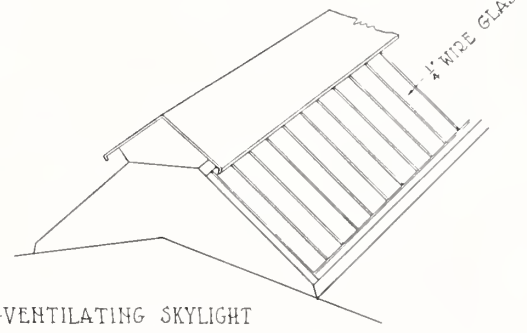
ROTARY VENTILATOR



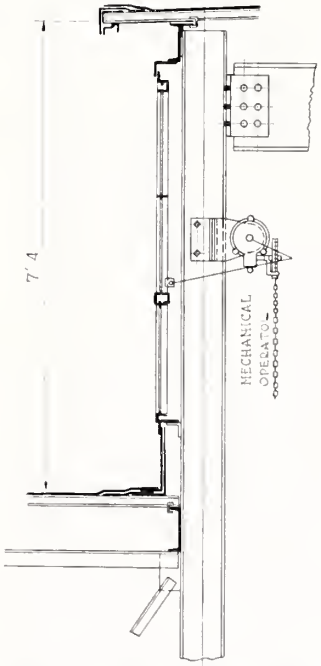


LANTERN FOR SERIES 'B' BUILDINGS

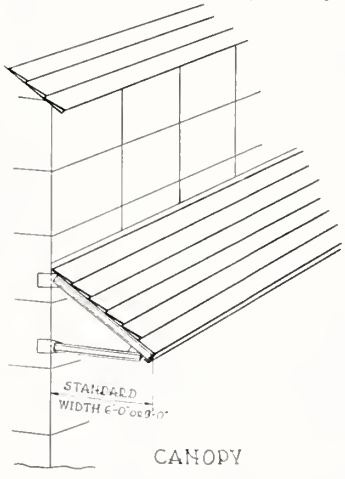




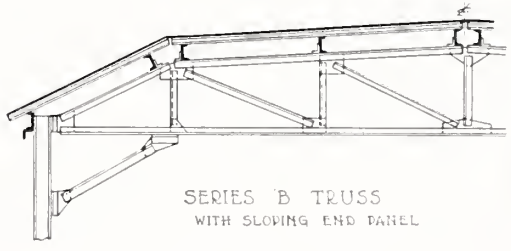
TRUSCON SELF-VENTILATING SKYLIGHT



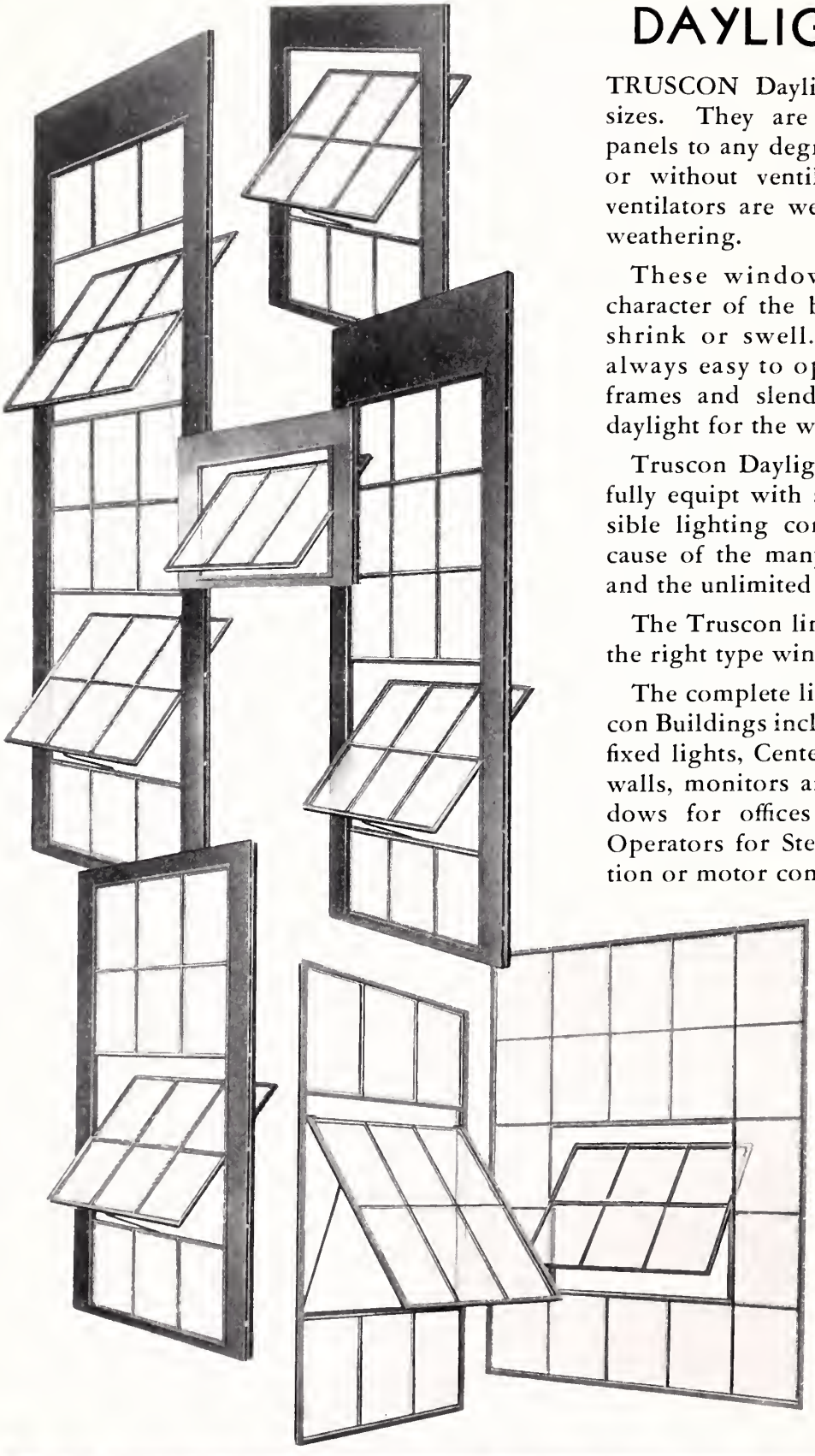
SECTION THRU SERIES 'B' MONITOR



CANOPY



SERIES 'B' TRUSS
WITH SLOPING END PANEL



DAYLIGHT PANELS

TRUSCON Daylight Panels are of standard sizes. They are interchangeable with solid panels to any degree. They are furnished with or without ventilator sections. Contacts of ventilators are weathertight, having two-point weathering.

These windows complete the fireproof character of the building. They do not warp, shrink or swell. They are permanent and always easy to open and close. The narrow frames and slender muntins allow maximum daylight for the window opening.

Truscon Daylight Panels are complete units fully equipt with suitable hardware. Any possible lighting condition can be obtained because of the many sizes of standard windows and the unlimited choice of location.

The Truscon line of Steel Windows provides the right type window for every purpose.

The complete line of steel windows for Truscon Buildings includes: Standard Windows with fixed lights, Center Pivoted Windows, for side walls, monitors and sawtooth; Projected Windows for offices if desired; and Mechanical Operators for Steel Windows for hand operation or motor control.

TRUSCON Windows are electrically welded into the panels before shipment except where they are to be set in concrete or masonry. In such cases they are furnished as separate units with expandible mullions. A further advantage is that Truscon Windows are designed to take either sheet or wire glass up to a thickness of one-quarter inch.

SIDEWALL PANELS

THE sidewall panels of Truscon Buildings can be combined in almost any arrangment. From the standard unit 4′ wide x 2′–8″ high *(Fig. 1)*, sidewalls that are multiples of its height *(Fig. 3)*, are built up to heights of from 8′–1″ to 21′–5″ for Series "A" Truscon Buildings and to 32′–9″ for Series "B" Truscon Buildings. Greater heights if desired, by special arrangement. Sidewall panels can be furnished with louvres, illustrated in *(Fig. 7)*.

Horizontal joining is ingeniously effected by interlocking the units with a stiff spring connection *(Fig. 4)*.

Standard steel mullions *(Fig. 5)* are used for studs and to these the panels are fastened with the wedge and tee bolt connection *(Fig. 2)*.

The mullion used for corners has a heavier flange, covering the edge of the panels it joins so that any impacts against the corner are resisted by the heavy steel section *(Fig. 6)*.

There are no shop or field holes punched in the exposed surfaces of this 20 gage copper alloy steel wall.

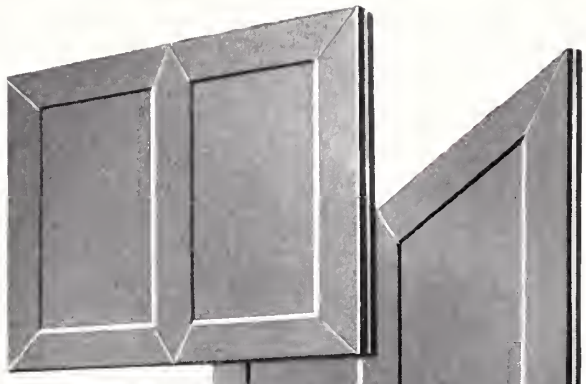


Fig. 1

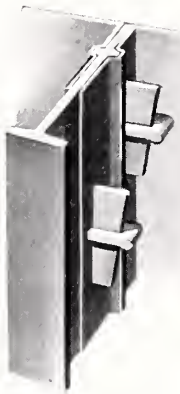


Fig. 2

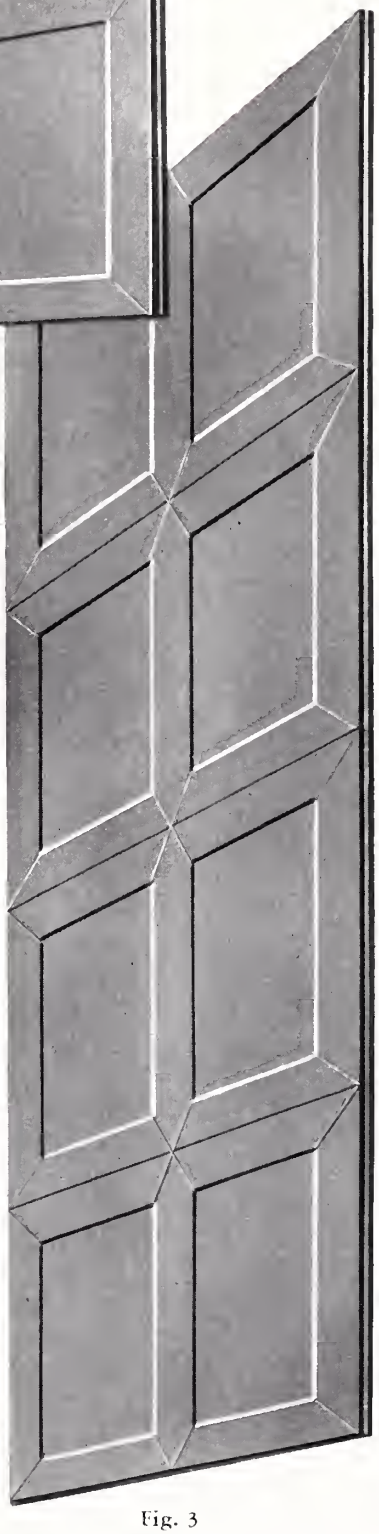


Fig. 3

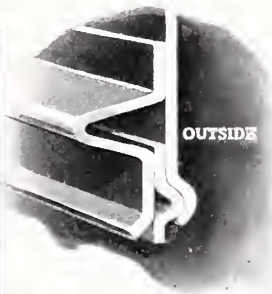


Fig. 4

Fig. 5

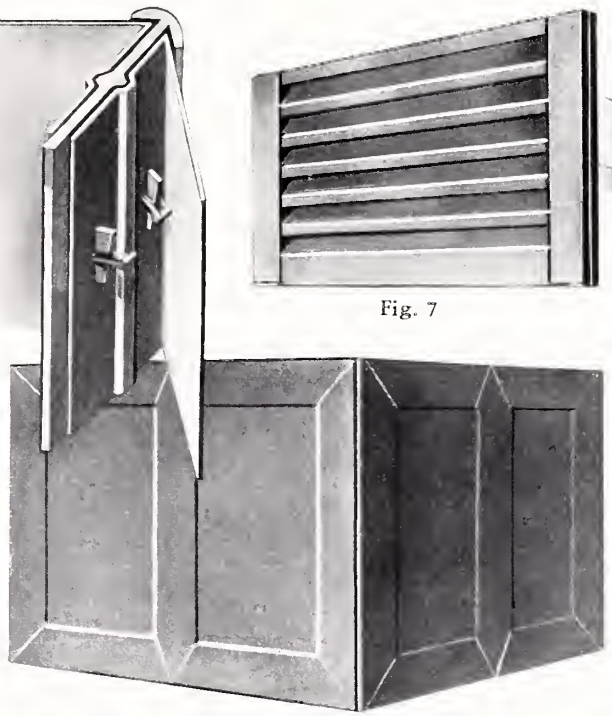


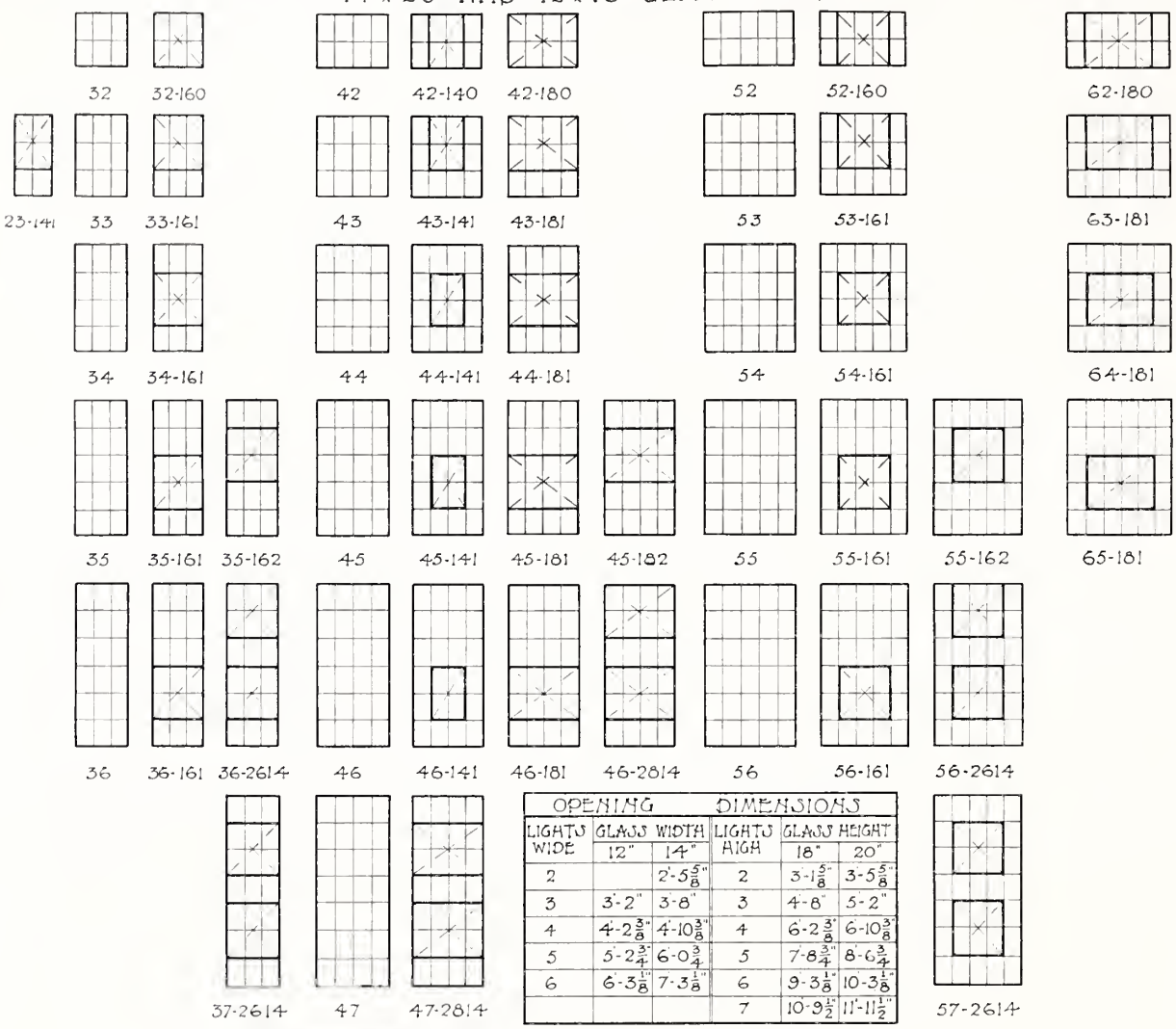
Fig. 6

Fig. 7

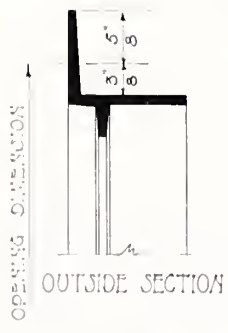
HORIZONTALLY PIVOTED WINDOWS

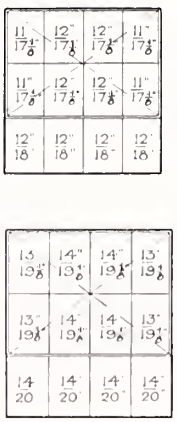
STOCK AND STANDARD SIZES

14" x 20" AND 12" x 18" GLASS SIZE



OPENING DIMENSIONS					
LIGHTS WIDE	GLASS WIDTH 12"	GLASS WIDTH 14"	LIGHTS HIGH	GLASS HEIGHT 18"	GLASS HEIGHT 20"
2		2'-5 5/8"	2	3-1 5/8"	3-5 5/8"
3	3'-2"	3'-8"	3	4'-8"	5'-2"
4	4'-2 3/8"	4'-10 3/8"	4	6'-2 3/8"	6'-10 3/8"
5	5'-2 3/4"	6'-0 3/4"	5	7'-8 3/4"	8'-6 3/4"
6	6'-3 1/8"	7'-3 1/8"	6	9'-3 1/8"	10'-3 1/8"
			7	10'-9 1/2"	11'-11 1/2"





NOTES

Ventilators indicated by crossed dashed lines are horizontally pivoted, 2 inches above centers.

Full sizes of glass in stationary portion of window only. In ventilators these dimensions are reduced 3/8" along tops and bottoms and 1" along sides.

Truscon Steel Windows may be combined to fill openings of any width by means of Truscon Standard Mullions.

All types of windows shown here are punched for mullions. To obtain width of opening add 2" for each mullion required.

WAREHOUSES AND SHEDS

Gustave Schaefer Co. ↑
Cleveland, Ohio

Warehouse
at Portland, Oregon ↓

St. Louis Press Brick Co. ↑
St. Louis, Mo.

Warehouse
at Kansas City, Mo. ←

TRUSCON BUILDINGS

WAREHOUSES AND SHEDS

H. K. Noyes & Son, Inc.
Waltham, Mass.

Pierce, Butler, Pierce
Queens, N. Y.

Municipal Warehouse, Providence, Rhode Island

The Growers Market Company
Youngstown, Ohio

TRUSCON BUILDINGS

AIRPLANE HANGARS

Metal Aircraft
Corporation
Cincinnati, O

Curtiss Flying Service
Valley Stream, L. I.
← New York

TRUSCON BUILDINGS

AIRPLANE HANGARS

General Aviation Company, Inc. Syracuse, N. Y.

Michigan National Guard, Detroit, Michigan

Standard Oil Co. Hangar
Memphis, Tenn.

Lee Motor Company
Collegeville, Pa.

TRUSCON BUILDINGS

AIRPLANE HANGARS

Exterior and interior views of the new Hangar operated by the Curtiss Flying Service Glenview, Ill

TRUSCON BUILDINGS

GARAGES AND SERVICE

Super-Service Station, ↑
Louisville, Ky.

Jenks & Weltzien, Peekskill, N. Y. ←

Johnson Oil Refining Co
Rantoul, Ill. ↓

The Texas Company, Houston, Texas ←

Automobile Rotary Lift Co., Memphis, Tenn. ↓

Tiona Refining Co. ↑
Indianapolis, Ind.

TRUSCON BUILDINGS

GARAGES AND SERVICE

Houston Lighting & Power Co. ↑
Houston, Texas

Pennsylvania Petroleum Products ↑
Co. Inc., Providence, R. I.

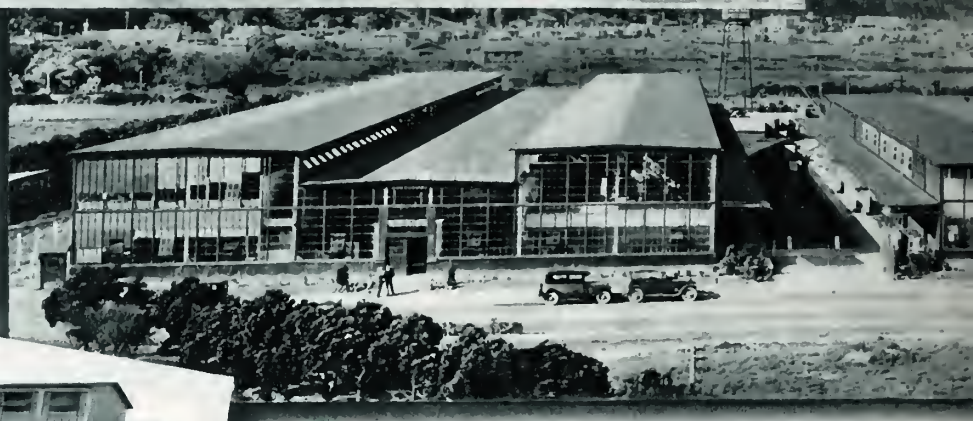
Garages of Tuxedo Park Assoc.
Tuxedo, N. Y. ↓

Geo. M. Brewster & Son
← Bagota, N. J.

TRUSCON BUILDINGS

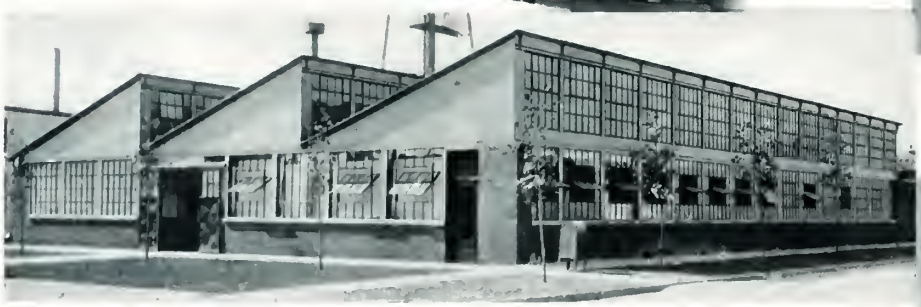
FACTORIES AND SHOPS

Chester Fosgate Packing House ↑
Forrest City, Fla.



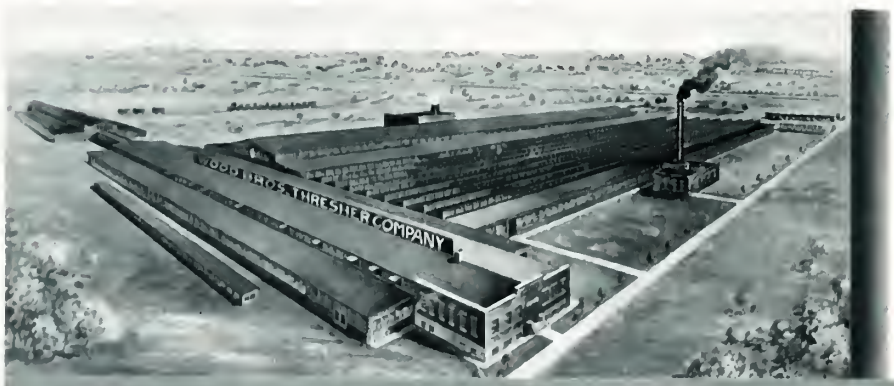
A. T. & S. F. Timber Treating Plant
National City, Calif. ↓

California Shade Cloth Co., San Francisco, C



W. N. Thornburgh Mfg. Co., Cicero, Ill. ↑

McKay Machin
Youngstown,



Wood Bros. Thresher Co.,
← Des Moines, Iowa

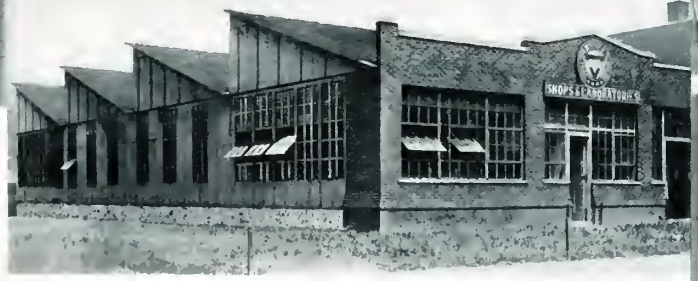
TRUSCON

FACTORIES AND SHOPS

↑ Babcock & Wilcox Co.
Beaver Falls, Pa.
Buildings at top center and right

Standard Brass & Manufacturing Co.
↓ Port Arthur, Tex

The General Motors Co., New Zealand ↑



Institute of Technology, Youngstown, Ohio ↑

Architectural Tile Co., Keyport, N. J. ↑

↑

Gleaner Combine Harvester Corporation
Kansas City, Mo.

UILDINGS

FACTORIES AND SHOPS

W. N. Thornburgh Mfg. Co., Cicero, Ill. ↑

Virginia Blanket Machinery Works
Rosslyn, Va. ↓

Virginia Blanket Machinery Works, Rosslyn, Va. ↑

Massey Concrete Products Corp.
← Minneapolis, Minn.

Niles Products Company, Niles, Ohio ↓

TRUSCON
BUILDINGS

FACTORIES AND SHOPS

↑
Stauffer Chemical Building
Hammond, Ind.

Horace R. Whittier Co.
Pequabuck, Conn. →

↑
Jensen Manufacturing
Company
Palmyra, New Jersey

Slattery Iron Works
Washington, D. C.
←

TRUSCON BUILDINGS

RAILROADS AND UTILITIES

San Antonio & Arkansas Pass. Ry. ↑
Waco, Texas

Car Barn
South New Orleans Light
& Traction Co., Algiers, La. ↓

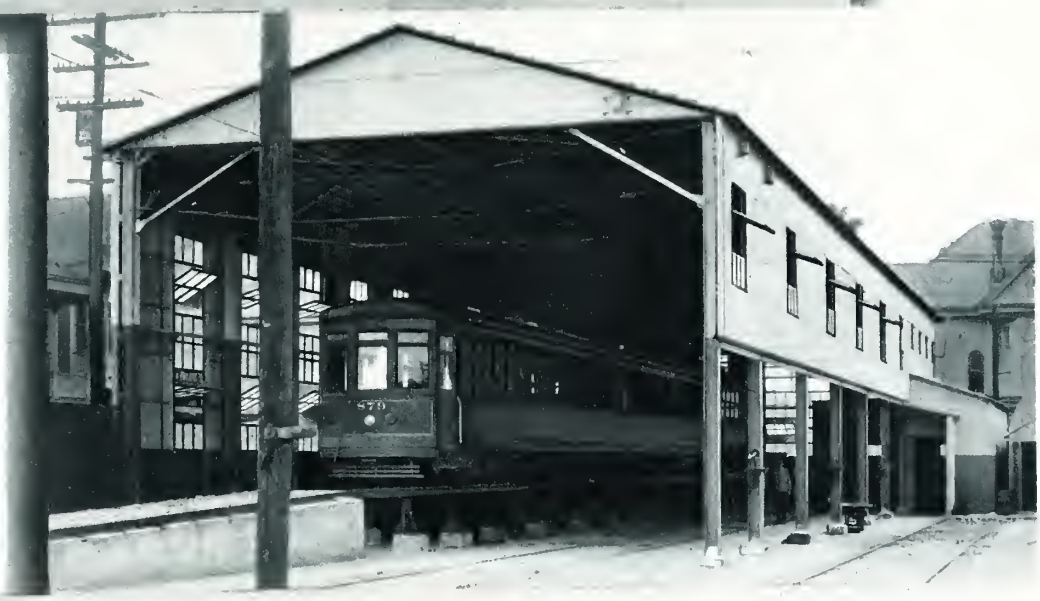
Paint Shop
N. Y., N. H. & H. R. R. Co.
← New Haven, Conn.

Car Repair Shop
N. Y., N. H. & H. R. R. Co.
E. Hartford, Conn →

TRUSCON
BUILDINGS

RAILROADS AND UTILITIES

Rock Island R. R ↑
Shawnee, Okla.



Prytania Car Barn
New Orleans, La. →

San Antonio & Arkansas Pass. Ry.
Waco, Texas ↓

Freight Station
C. & N. W. Railway
Milwaukee, Wis. →

TRUSCON BUILDINGS

OIL INDUSTRY

↑
Gypsy Oil Co.
Earlsboro, Okla.

Coltexa Corp.
Hammock, La.
←

Crown Oil Co. ↑
Syracuse, N. Y

Natural Gas Compressing Station
Edna, Texas →

TRUSCON BUILDINGS

OIL INDUSTRY

Prairie Pipe Line Co. ↑
Caney, Kansas

Gulf Pipe Line Co
Earlsboro, Okla. ↓

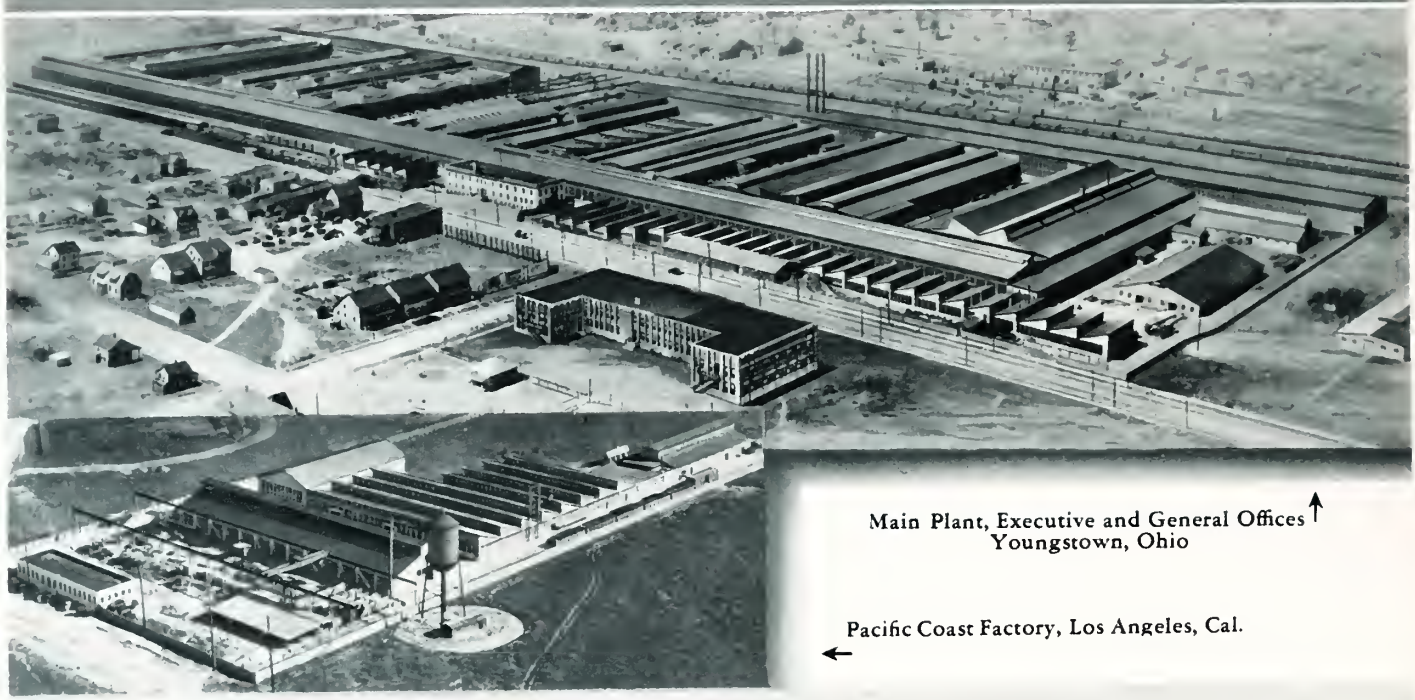
Houston Oil Co., Camden, Ark. ↑

Magnolia Pipe Line Co.
Maud, Okla. →

Gypsey Oil Co.
← Oklahoma

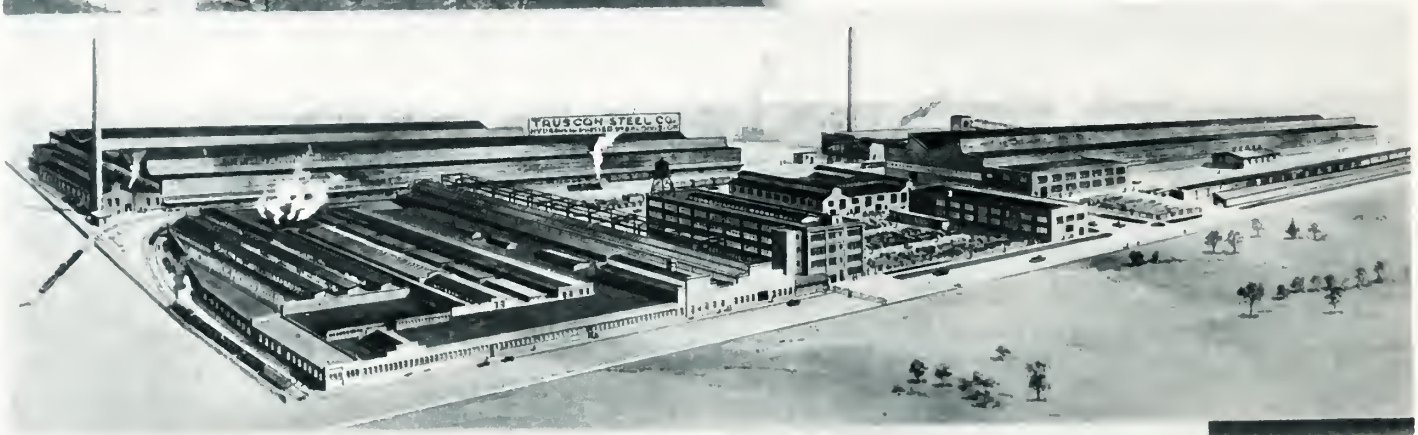
TRUSCON BUILDINGS

TRUSCON PLANTS



Main Plant, Executive and General Offices
Youngstown, Ohio

Pacific Coast Factory, Los Angeles, Cal.



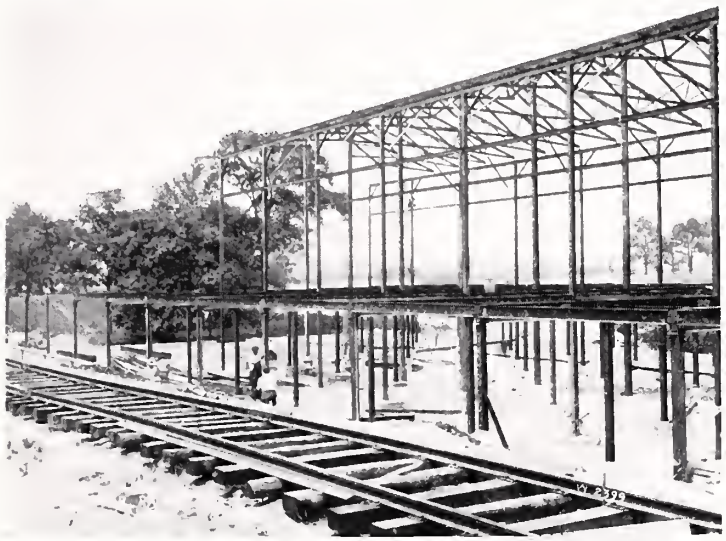
Pressed Steel Division
Cleveland, O.

The Truscon Laboratories
Detroit, Mich.

Truscon Steel Co. of Canada, Ltd., Walkerville, Ont.

Truscon Steel Co., Kawasaki, Japan

WE ERECT THE COMPLETE BUILDING



TRUSCON not only manufactures the units of which your building is composed, Truscon also erects the building. Truscon maintains trained men who specialize in the erection of Steel Buildings. Every detail of assembling the material into a completed building is supervised and executed by Truscon erection men. This is a big factor in the economy of Truscon standardized buildings.

Truscon Erection Service effects decided savings through the speed with which these buildings are put up. The work is done in an orderly manner. No time is lost. No material is wasted. Many cases arise where this feature alone represents a saving to the customer that exceeds the entire cost of the complete building.

The right building erected and ready for use on a certain date permits important adjustments in the production schedule. When a Truscon Building, for example, is being erected to take the place of a structure destroyed by fire, every day saved means heavy losses averted and quicker return to normal operation.

Truscon Erection Service also assures you that the building will be exactly as designed. No slipshod workmanship, because Truscon men are specialists who take a personal interest in delivering to you a building that is representative in every respect.

TRUSCON ERECTION SERVICE IS NATION-WIDE

Fig. 1

STANDARD STEEL DOORS

SWING AND SLIDE TYPE UNITS

TRUSCON Standard Steel Doors, Wall Panels and Frames are interchangeable. Thus, doorways may be placed anywhere in the steel walls of a Truscon Building. The doors are furnished in swing and slide types, single, double, jack-knife or in any type combinations. Upper panels may be of glass or solid.

Truscon Standard Steel Doors are manufactured from formed rails of copper steel. They are firesafe, permanent and withstand rough usage. Nor will these doors warp or swell; ease of operation is assured. Corners are welded and internally reinforced against sagging.

Truscon doors are factory fitted to their frames and delivered as complete units, fully equipt with suitable hardware. Standard Types in swing and slide units, double or single, are stocked in our warehouses for quick delivery.

Truscon Stock Doors are furnished in various sizes for swing or slide installations and meet most practical conditions. Single doors fill openings from 3 ft. x 7 ft. to 5 ft. x 10 ft. in size and double doors from 6 ft. x 7 ft. to 10 ft. x 10 ft. Industrial Type Steel Doors in both swing and slide units for larger openings.

Fig. 2

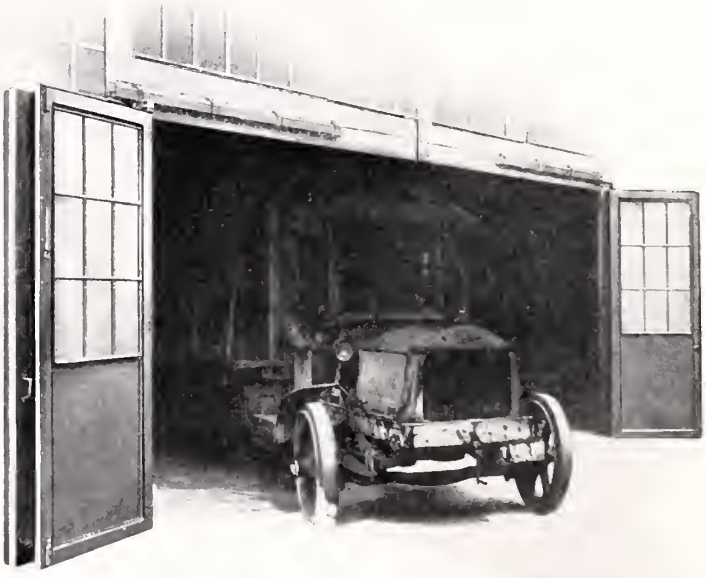


Fig. 3

Fig. 1
Types with Glass Panels

Fig. 2
Double Door, Swing Type

Fig. 3
Jack-Knife Type Door

STANDARD STEEL DOORS

VERTICAL FOLDING DOORS

JACK-KNIFE TYPE

TRUSCON Vertical Folding Doors of Seamless Tubular Rail, a fourfold type, were designed to meet successfully the extraordinary requirements of large openings. Their construction insures rigidity and they can be operated by one person. When open, this steel door completely clears the opening.

Fig. 1

AIRPLANE HANGAR DOORS

TRUSCON Hangar Doors meet all requirements and are available in two types and sizes to fit individual installations. Details on pages 39 and 40.

Straight Slide Types: These doors are made of units which run on tracks embedded in the floor and relieve the overhead construction from supporting their weight. The doors open and close easily on rollers with ball and thrust bearings.

Curved Track Types: Each door is mounted on heavy cast steel wheels encased in the door itself; the wheels are equipped with roller swivels and ball bearings and carry the entire weight of the door. Bronze bushed rollers at the door head act as guides when the door moves on the track.

Fig. 1—Vertical Folding Door
Fig. 2—Airplane Hangar Door, Curved Track Type
Fig. 3—Airplane Hangar Door, Straight Slide Type

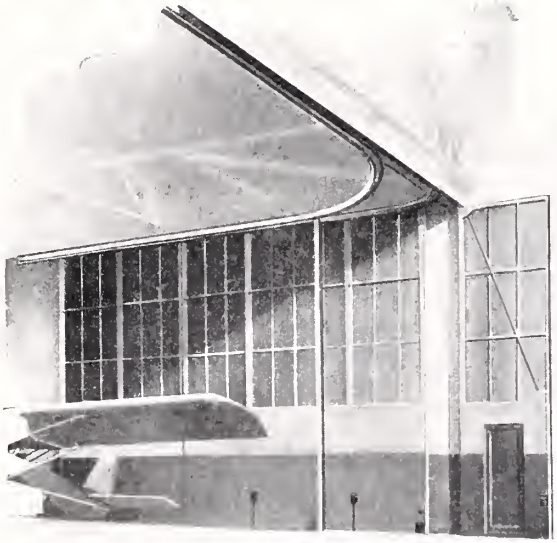


Fig. 2

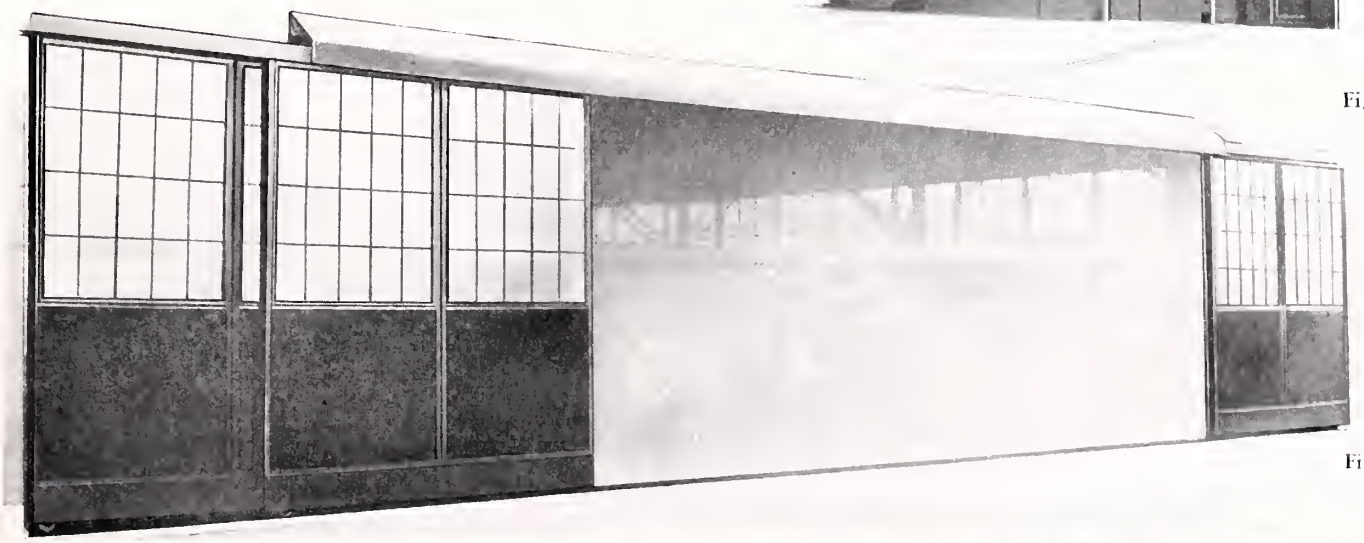
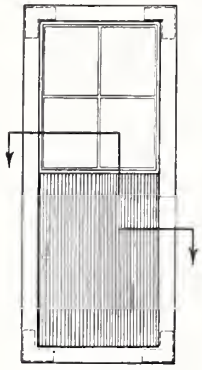


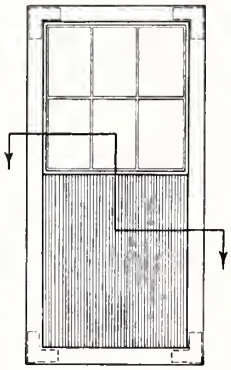
Fig. 3

SWING TYPE DOORS

STOCK AND STANDARD SIZES

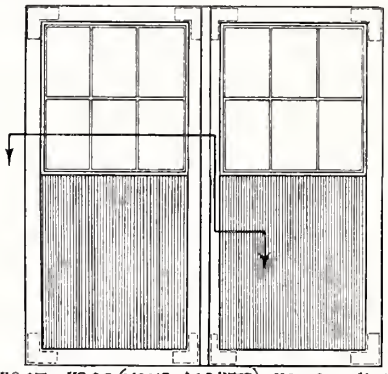


№ 37 & № 38



№ 48 & № 510

• SINGLE SWING •



№ 67 & № 68 (FOUR LIGHTS) № 88 & № 1010

• DOUBLE SWING •

STOCK SIZES					
DOOR №	SIZE OF DOOR		SIZE OF OPENING		GLASS SIZE
	WIDTH	HEIGHT	WIDTH	HEIGHT	
SINGLE SWING					
37	3'-0"	7'-0"	3'-0 3/8"	7'-0 3/4"	12 3/4" x 18"
38	3'-2 3/8"	7'-9"	3'-2 3/4"	7'-9 3/4"	14" x 18"
48	3'-10 3/4"	7'-9"	3'-11 1/8"	7'-9 3/4"	12" x 18"
510	4'-10 3/4"	9'-9"	4'-11 1/8"	9'-9 3/4"	16" x 22"
DOUBLE SWING					
67	6'-0 3/8"	7'-0"	6'-0 3/4"	7'-0 3/4"	12 3/4" x 18"
68	6'-5 1/8"	7'-9"	6'-5 1/2"	7'-9 3/4"	14" x 18"
88	7'-9 3/8"	7'-9"	7'-10 1/4"	7'-9 3/4"	12" x 18"
1010	9'-9 3/8"	9'-9"	9'-10 1/4"	9'-9 3/4"	16" x 22"

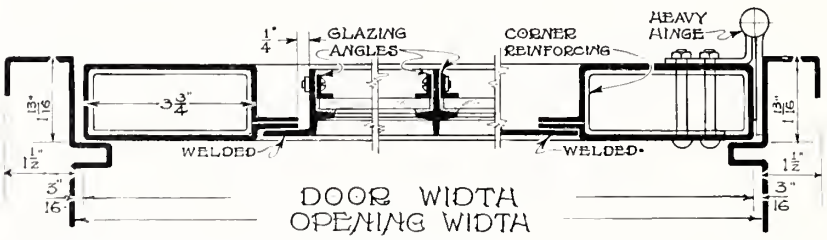
—NOTES—

BY FITTING THE LEAVES WITH THE PROPER TYPE AND ARRANGEMENT OF HARDWARE THEY MAY BE USED FOR SINGLE OR DOUBLE SWING DOORS.

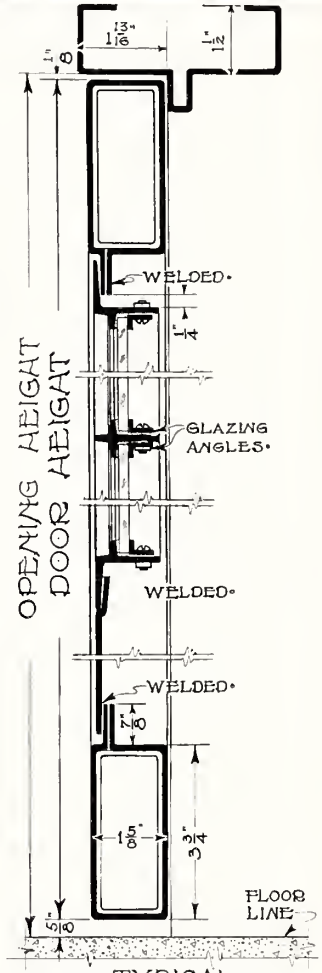
ALL DOORS ARE FURNISHED WITHOUT GLASS, - 3/8 × 1/2" CONTINUOUS GLAZING ANGLES ARE SUPPLIED FOR ALL DOOR LIGHTS.

ALL TRUSCON DOORS ARE HEAVILY REINFORCED AT CORNERS.

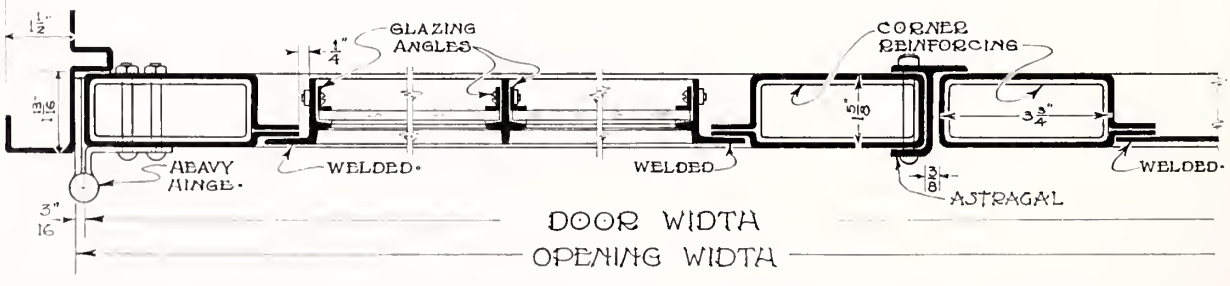
DOORS MAY ALSO BE FURNISHED WITH SOLID STEEL PANELS.



• HORIZONTAL SECTION THRU SINGLE SWING DOOR •
(OPEN IN)



• TYPICAL •
• VERTICAL SECTION •
FOR
SINGLE AND DOUBLE
• SWING DOORS •



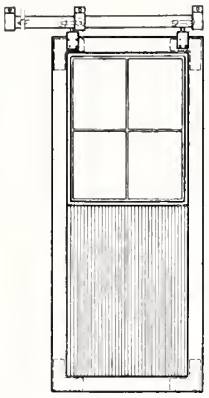
• HORIZONTAL SECTION THRU DOUBLE SWING DOOR •
(OPEN OUT)

SLIDE TYPE DOORS

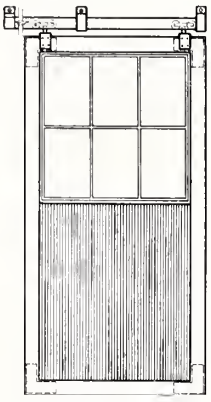
STOCK AND STANDARD SIZES

TRACK CAN BE OBTAINED IN LENGTHS OF 6'-0", 8'-0" & 10'-0"

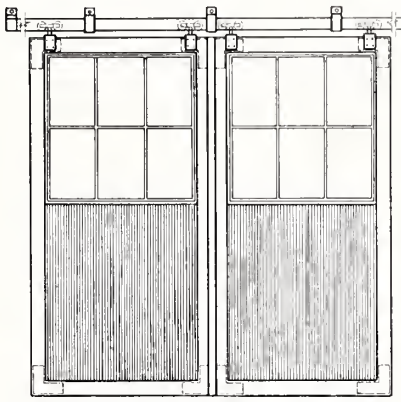
• LENGTH OF TRACK ABOUT TWICE THE WIDTH OF DOORS •



№ 37 & № 38
SINGLE SLIDE



№ 48 & № 510
SINGLE SLIDE



№ 67 & № 68 (FOUR LIGHTS) № 88 & № 1010
DOUBLE SLIDE

STOCK SIZES					
DOOR №	SIZE OF DOOR		SIZE OF OPENING		GLASS SIZES
	WIDTH	HEIGHT	WIDTH	HEIGHT	
SINGLE SLIDE					
37	3'-0"	7'-0"	2'-9"	6'-11¼"	12¾ × 18"
38	3'-2⅜"	7'-9"	2'-11⅜"	7'-8¼"	14" × 18"
48	3'-10¾"	7'-9"	3'-7¾"	7'-8¼"	12" × 18"
510	4'-10¾"	9'-9"	4'-7¾"	9'-8¼"	16" × 22"
DOUBLE SLIDE					
67	6'-0⅜"	7'-0"	5'-9⅜"	6'-11¼"	12¾ × 18"
68	6'-5⅛"	7'-9"	6'-2⅛"	7'-8¼"	14" × 18"
88	7'-9⅞"	7'-9"	7'-6⅞"	7'-8¼"	12" × 18"
1010	9'-9⅞"	9'-9"	9'-6⅞"	9'-8¼"	16" × 22"

NOTES

ALL DOORS ARE FURNISHED WITHOUT GLASS, — ⅜ × ½ CONTINUOUS GLAZING ANGLES ARE SUPPLIED FOR ALL DOOR LIGHTS.

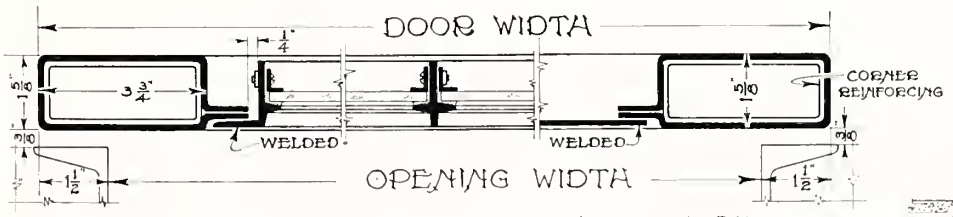
ALL TRUSCON DOORS ARE HEAVILY REINFORCED AT CORNERS.

DOORS ARE EQUIPPED WITH SUITABLE HARDWARE.

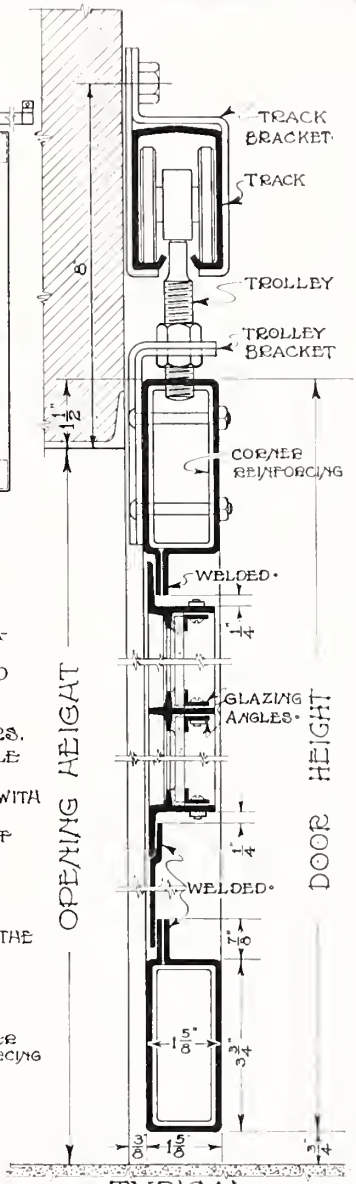
DOORS MAY ALSO BE FURNISHED WITH SOLID STEEL PANELS.

WHEN TRACK IS ON EXTERIOR OF WALL FLASHING IS FURNISHED BY OTHERS.

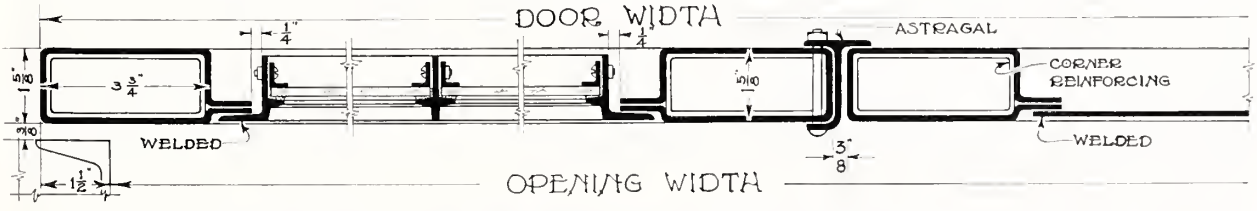
TWO OR MORE UNITS MAY BE UNITED INTO SINGLE LEAVES FOR WIDER OPENINGS THAN SHOWN IN THE TABLE.



• HORIZONTAL SECTION THRU SINGLE SLIDE DOOR •



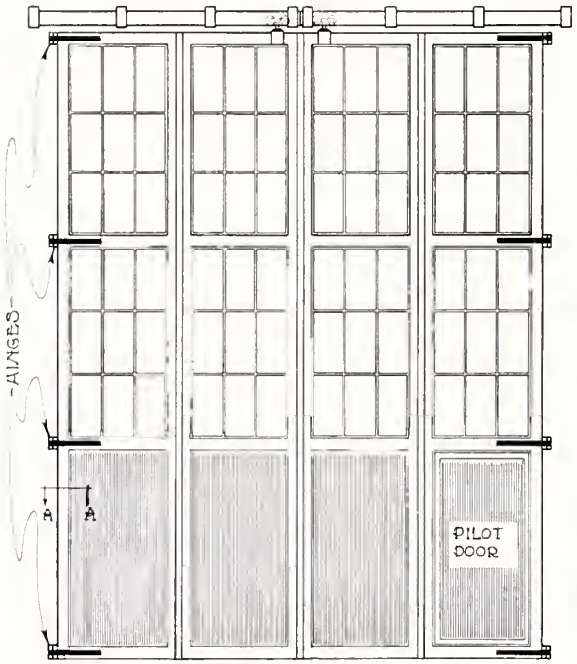
• TYPICAL •
• VERTICAL SECTION •



• HORIZONTAL SECTION THRU DOUBLE SLIDE DOOR •

VERTICAL FOLDING DOORS

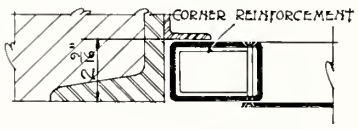
JACK-KNIFE TYPE—SEAMLESS TUBULAR RAIL



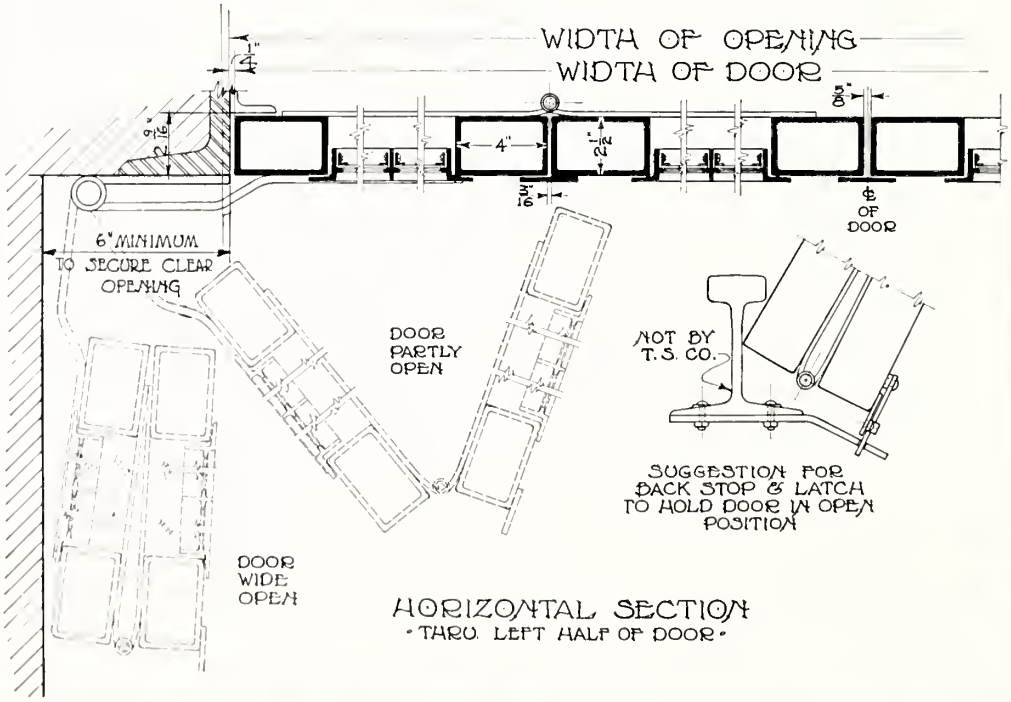
TYPICAL ELEVATION SHOWING PILOT DOOR

NOTES

ALL DOORS ARE FURNISHED WITHOUT GLASS.- $\frac{3}{8} \times \frac{1}{2}$ CONTINUOUS GLAZING ANGLES ARE SUPPLIED FOR ALL DOOR LIGHTS.
DOORS ARE EQUIPPED WITH SUITABLE HARDWARE.

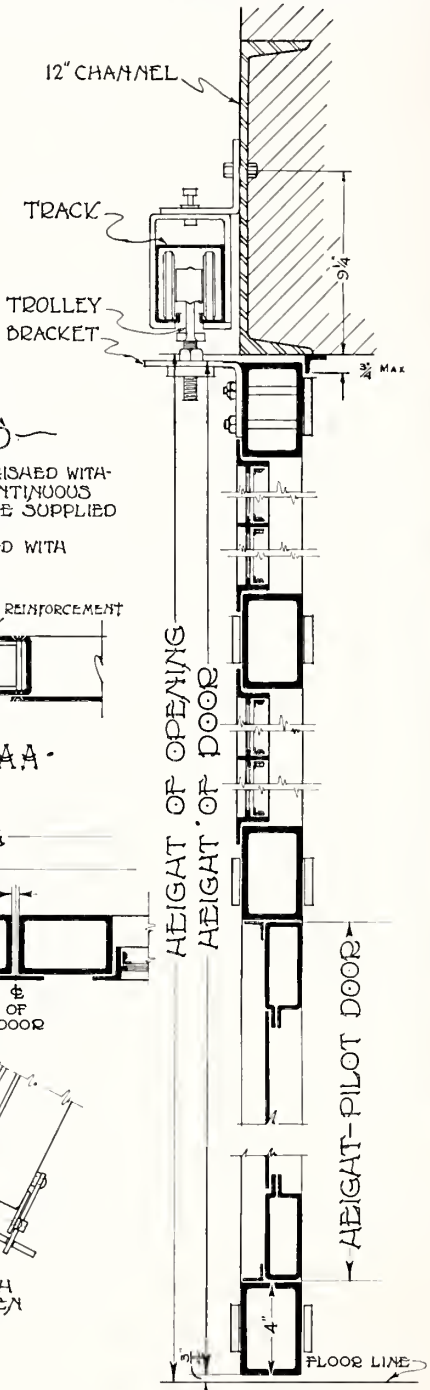


SEC A-A



HORIZONTAL SECTION
THRU LEFT HALF OF DOOR

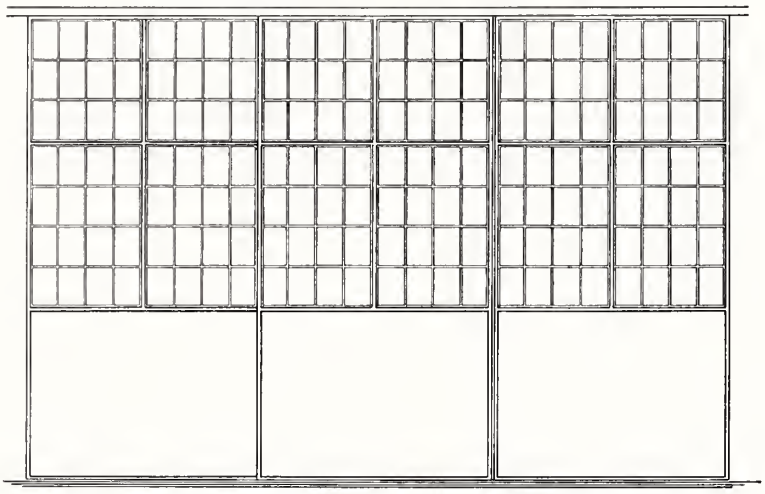
SUGGESTION FOR BACK STOP & LATCH TO HOLD DOOR IN OPEN POSITION



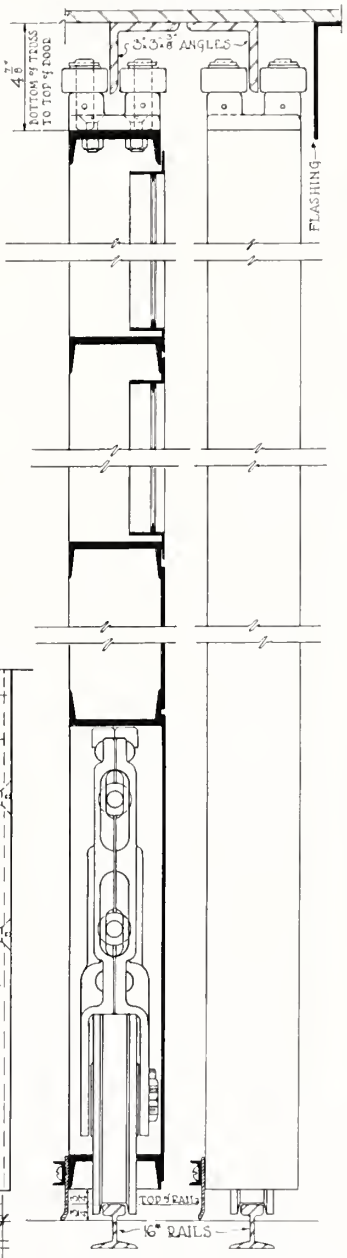
VERTICAL SECTION

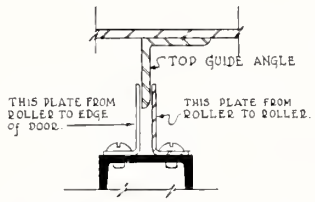
AIRPLANE HANGAR DOORS

STRAIGHT SLIDE TYPE

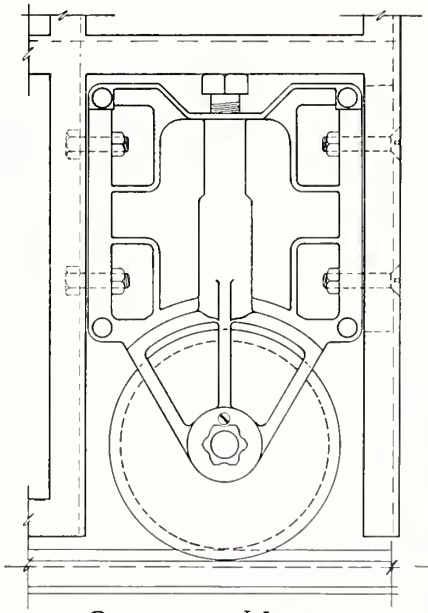


TYPICAL ELEVATION



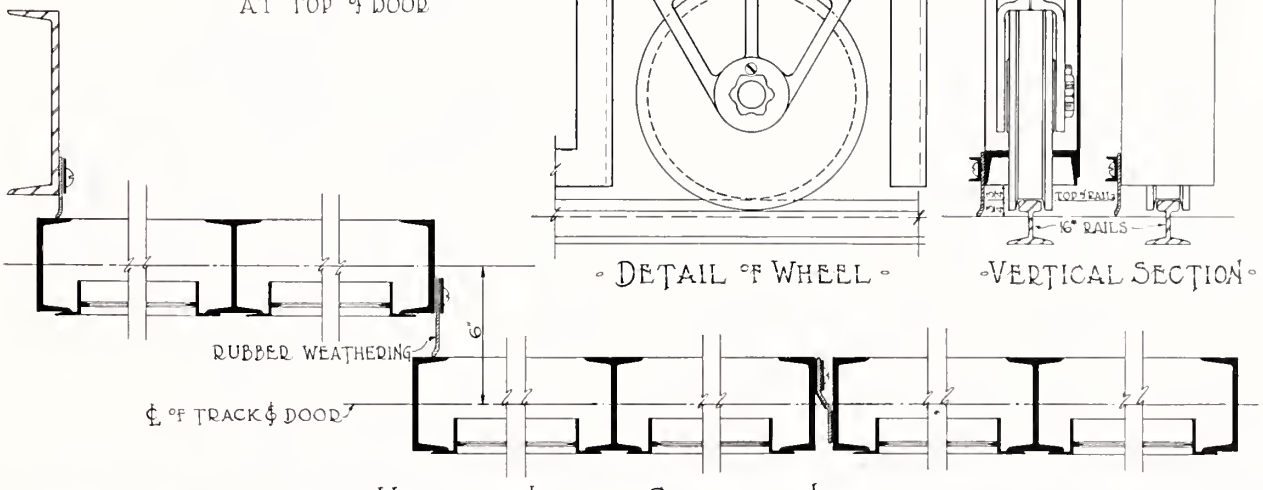


METHOD of WEATHERING AT TOP of DOOR



DETAIL of WHEEL

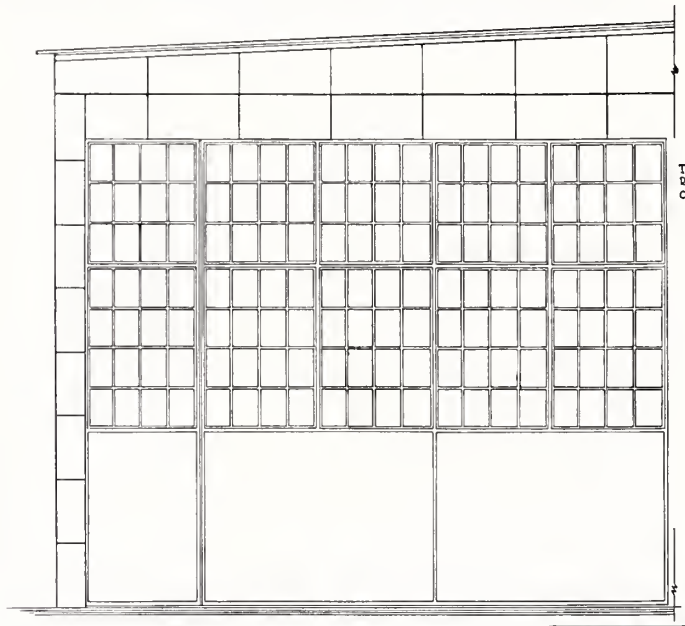
VERTICAL SECTION



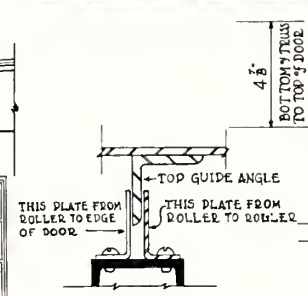
HORIZONTAL SECTION

AIRPLANE HANGAR DOORS

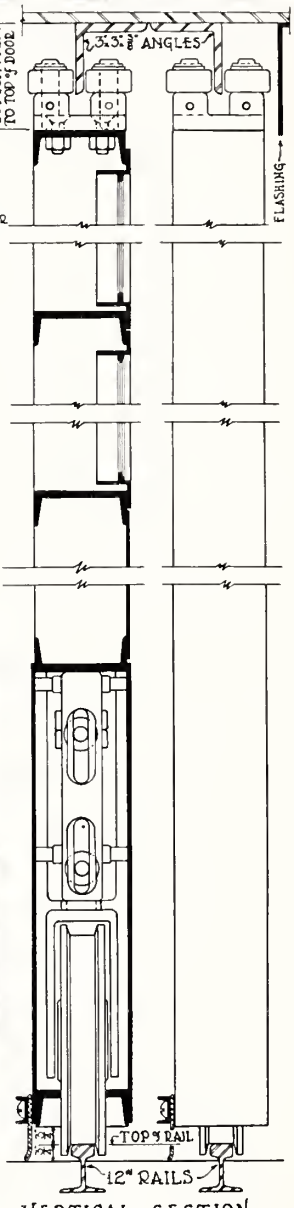
CURVED TRACK TYPE



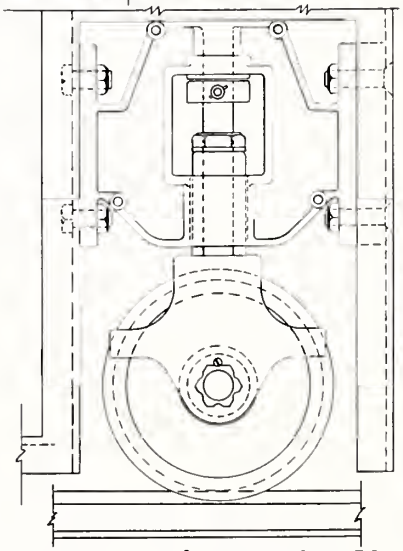
TYPICAL ELEVATION



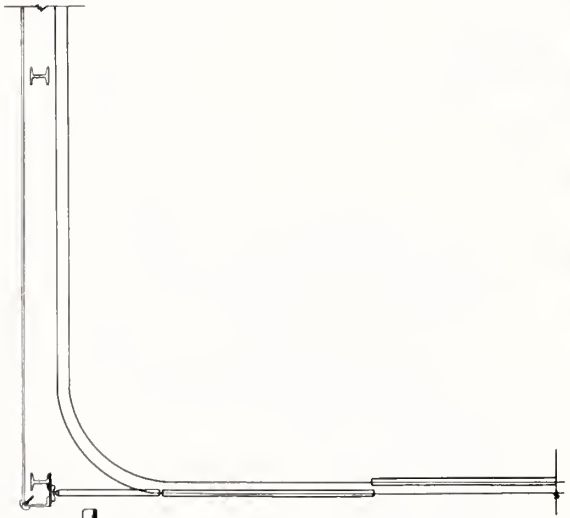
METHOD OF WEATHERING AT TOP OF DOOR



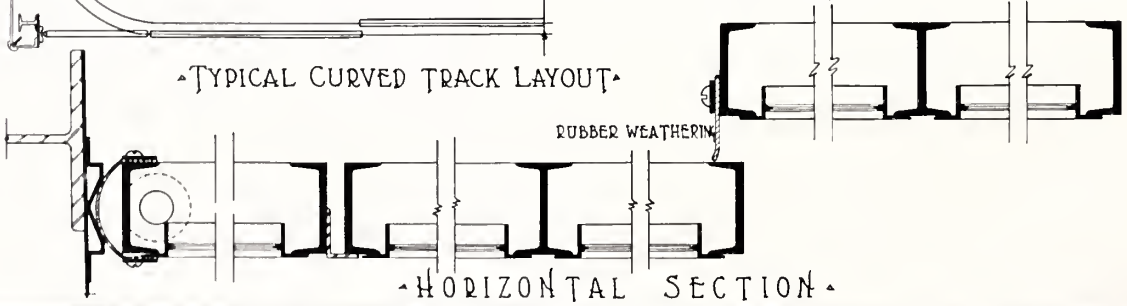
VERTICAL SECTION



DETAIL OF BOTTOM ROLLER



TYPICAL CURVED TRACK LAYOUT



HORIZONTAL SECTION

INTERLOCKING PLATE TYPE ROOF

FOR SERIES "A" TRUSCON BUILDINGS (PITCHED ROOFS)

THE Truscon Interlocking Plate Type Roof is strong, safe and rigid, watertight and quickly laid. The interlocking plates, made of 18 gage rust-resisting copper steel, are fabricated sections formed and reinforced to support specified roof loads. End seams are covered with weathertight strips.

NO HOLES ARE PUNCHED THROUGH THE ROOF-SHEETS

The Truscon Interlocking Plate Type Roof is securely fastened to the trusses by means of a special clip from beneath. There are no bolt or rivet heads to hold moisture and encourage early decay.

The Truscon Interlocking Plate Type Roof is strong but without excessive weight. In fact, the light weight construction permits great savings in the cost of supporting members.

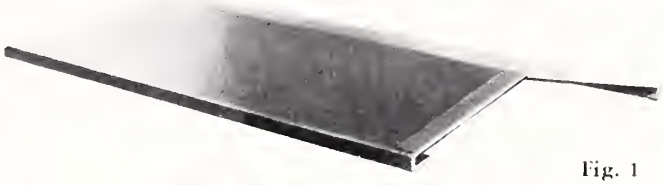


Fig. 1

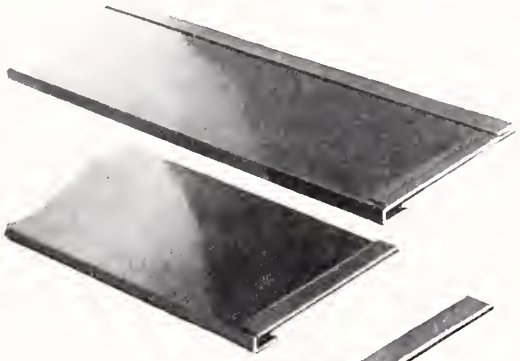


Fig. 2

Fig. 3

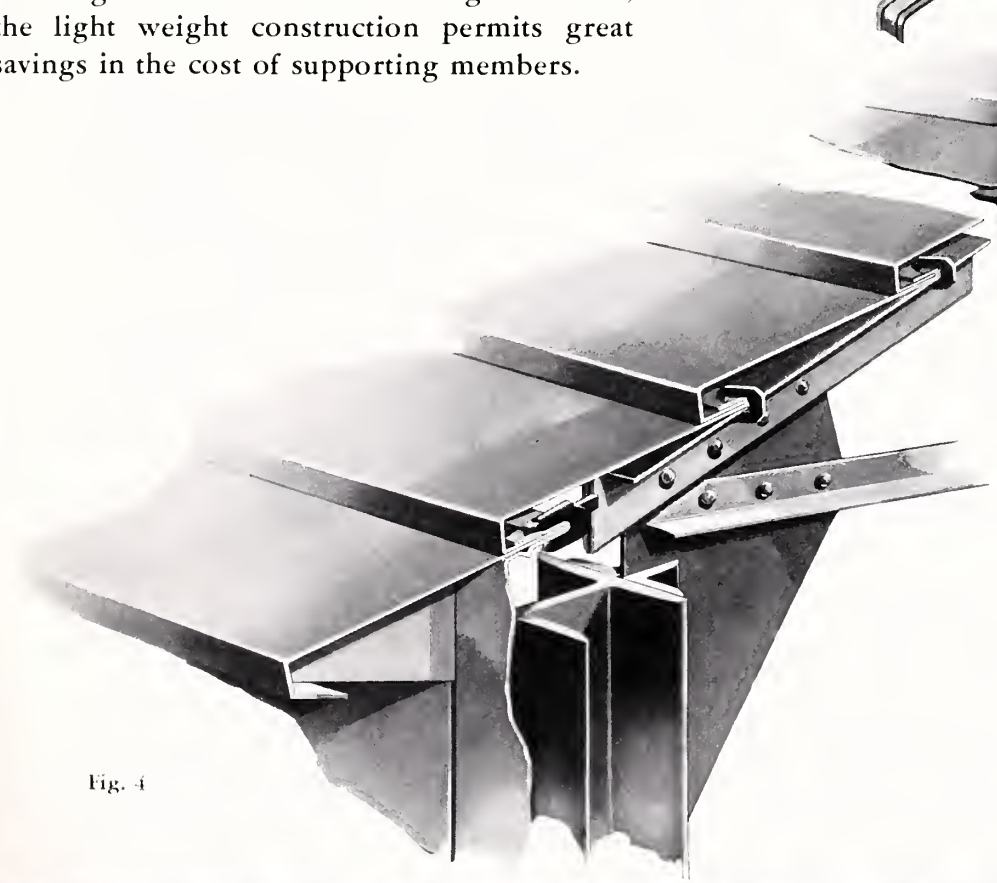


Fig. 4

Fig. 1. Ridge Plate.

Fig. 2. Eave Plate and Intermediate Plate.

Fig. 3. End Seam Strip.

Fig. 4. Combined Detail illustrating the Application of Truscon Interlocking Roof at Ridge Intermediate Roofing and at the Eave.

STEELDECK ROOFS

INSULATED AND WATERPROOFED

FOR SERIES "A" AND "B" TRUSCON BUILDINGS

TRUSCON Steeldeck Roofs are plates of copper-bearing steel of standardized lengths and widths, with ribs formed into them. The ribs are on the underside of the plates. The top is a smooth surface to receive insulation and waterproofing.

All "Steeldeck" qualities are distinctive and are reflected in the wide-spread acceptance accorded Truscon Steeldeck Roofs—Ferrodeck, I-Plates and Ferrobord types—by architects and engineers and expressed by their increasing use on all types of industrial, commercial and institutional buildings.

When used on industrial buildings where the roof also serves as a ceiling, the underside of a Truscon Steeldeck presents a pleasingly trim appearance and if painted its surface can be made a permanent and effective light reflector.

THE IMPORTANCE OF THE RIGHT ROOF

WHEN choosing a roof design, occupancy conditions, heating, ventilation, humidity—both exterior and interior and the geographic location must be considered. The right roof must be practicable in design and purpose. It must successfully protect against the elements of wind, water and fire. It must be durable in order to safeguard the initial investment. It must be flexible, firm and free from inherent movement caused by expansion and contraction. It must be economical through lightness in weight and minimum of expense. It must harmonize in its details with the structural supports.

ADVANTAGES OF STEELDECK ROOF CONSTRUCTION

Light in Weight. The Steeldeck Roof weighs approximately 5 lbs. per square foot including the insulation and the built-up roofing.

Incombustible. A Steeldeck Roof protects the whole building and its contents from fire.

Expansion and Contraction Difficulties Eliminated. Expansion joints are provided in two directions, at the sides and ends of each roof sheet. There can be no accumulation of appreciable movement. Both the insulation and the built-up waterproofing are positively free from injury by this usual source of trouble.

Insulation. Any desired occupancy condition is obtained by varying the thickness of the insulation which is applied on the steeldeck.

Saves Time. Speeds completion of buildings, especially in wet and winter seasons.

Low Final Cost. Light weight effects savings in structural supports.

Correct Engineering. In keeping with approved practice. Sections designed for minimum deflection at maximum load.

No Layout Required. All details are standardized. Not any time is lost in the making of special erection drawings.

Permanent. Made of rust resisting steel and protected from above and below.

Undivided Responsibility. Responsible roofers furnish a complete installation of insulation and built-up waterproofing.

INSULATION DATA

THE purpose of roof insulation is to prevent heat loss through the roof construction, and to effect definite savings in fuel and money. Insulation, applied to roof construction, functions as follows:

1. Reduction of heat loss, inward and outward. Without insulation, the heat of the sun warms the air under the roof deck by contact with the roof surface, until temperatures within this space are often higher than outside temperatures. Insulation is as efficient in keeping out the heat of the sun in the summer, as it is in retaining heat within the structure during the colder months. Approximately 35% of the total heat loss is through the roof.

2. Elimination of condensation, which occurs on the underside of non-insulated roof decks. This is accomplished, even under extreme conditions, by a careful study of temperatures, humidities, ventilation, surface resistance and the determination of the proper thickness of roof insulation. Condensation, or the "sweating" of roofs, often causes damage and annoyance to the contents and occupants of a building, and a general disintegration of the roof structure. Substantial economies are also effected by the use of a properly insulated roof, by increasing the life of the roof structure and safeguarding the contents of the building.

3. Elimination of excessive expansion and contraction, a well-known hazard brought about through temperature changes from winter to summer. This becomes a structural problem as all building materials used in roof construction other than Steeldeck Roofs or similar material, expand and contract under these conditions, causing fracture in the roofing felts and consequent damage to the entire structure. If the proper thickness of insulation is placed between the Roofdeck and built-up roofing, the variation in temperature in a building is greatly reduced and the actual roof structure is held at a more uniform temperature.

HEAT TRANSMISSION

(Air to Air)

	B. T. U. per Sq. Ft., per Hr. per Degree Diff. in Temp.
Steeldeck with Waterproofing	.825 Ave.
Steeldeck with Waterproofing and ½" Insulation	.37 Ave.
Steeldeck with Waterproofing and 1" Insulation	.23 Ave.
Steeldeck with Waterproofing and 1½" Insulation	.18 Ave.
Steeldeck with Waterproofing and 2" Insulation	.14 Ave.
Steeldeck with Waterproofing and 3" Insulation	.096 Ave.
AIR TO AIR CONDUCTIVITY FOR SUSPENDED CEILING	
Metal Lath and Plaster	.51

CONSTRUCTION MATERIALS

(From the Report of the Insulation Committee of the American Society of Refrigerating Engineers)

	B. T. U. per Sq. Ft., per Hr. per Degree Diff. in Temp.
INTERNAL COMMERCIAL CONDUCTIVITY FOR 1" THICKNESS	
Insulation .....*(Average Commercial Products)*	.33
Wood .....*(tight, no allowance for shrinkage cracks)*	1.00
Gypsum	3.00
Brick	5.00
Concrete	8.00

BUILT-UP ROOFING DATA

ALL kinds of roofing felts as well as Commercial insulation have an affinity for roofing tars and asphalts, thus assuring a perfect adhesion to the surface of the steeldeck.

The perfect adhesion of roofing felts and insulation to the deck enables the roofer to make a positive guarantee of roof service. For this reason he prefers to lay built-up roofing on insulated Steeldeck Roof construction.

Roofing felts do not fracture when laid on insulated Steeldeck, as is the case with roof decks which expand and contract during temperature changes.

Concrete roof slabs require a priming coat before the laying of built-up roofing, to insure a bond to the deck.

Gypsum roof slabs require two priming coats before the laying of built-up roofing, to insure a good bond.

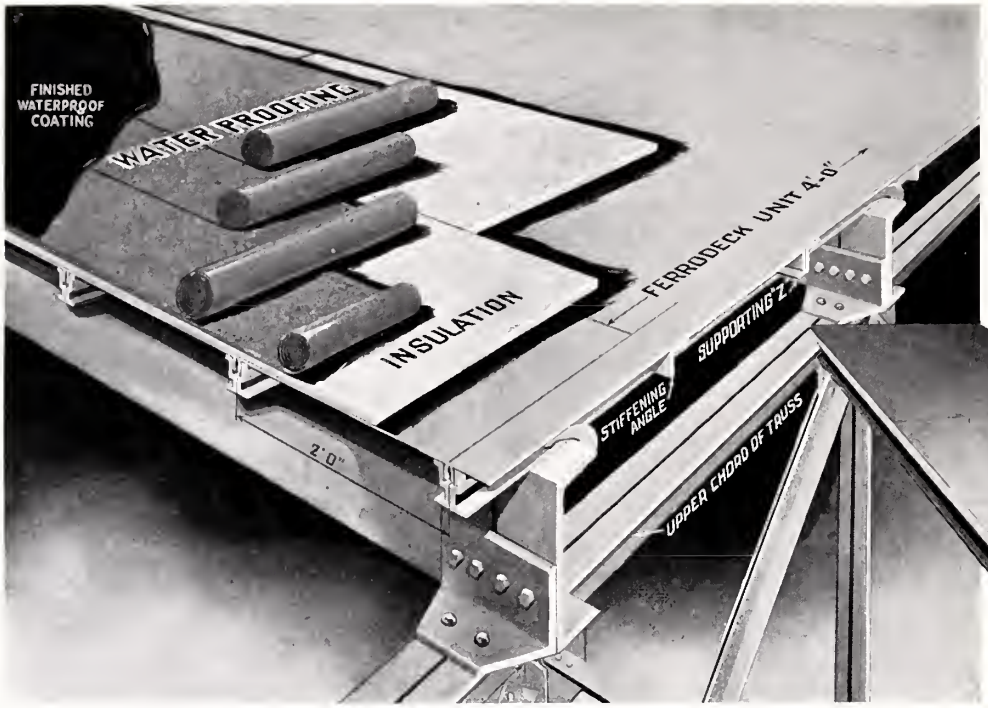
Wood roof decks require the nailing of built-up roofing to insure a bond to them.

An insulated Steeldeck does not require priming, or the mechanical fastening of built-up roofing, under similar conditions.

The uneven top surface of other roof decks causes blistering of felts, through the formation of air pockets during application. Such conditions do not exist in application of built-up roofing on insulated Steeldeck.

During inclement weather conditions, when erection is in progress, other types of roof construction must be allowed considerable time to dry out. The surface of Steeldeck can easily be dried off and the erection continued without material delay.

Temperature cracks in roof decks of concrete, gypsum and wood, allow moisture from the underside to attack the built-up roofing felts and cause blistering and breaking of the watertight seal. Such failure is impossible with built-up roofing laid on Steeldeck, where temperature cracks are eliminated by the use of roof insulation.



TRUSCON Ferrodeck

PATENT PENDING

STEELDECK ROOF

Insulated and Waterproofed

SECTION SHOWING FERRODECK STEELDECK ROOF, INSULATION AND BUILT-UP ROOFING

THE Ferrodeck type of Truscon Steeldeck Roofs is an assembly of sub-purlins and reinforced roof sheets. The sub-purlins are made from 18 gage channel sections, spot welded back to back. A bend in the web of the channel section causes an opening to be formed between the backs of the channels at the top, where they are spot welded together.

The Ferrodeck roof sheets are fabricated with two edges flanged over about 1″ at 90°. Substantial reinforcing members at intervals of not over 16″ are provided to strengthen and stiffen them. These fabricated roof sheets are either 18 or 20-gage.

To erect Ferrodeck, the sub-purlins, at 2′-0″ spacings, are securely fastened to the supporting roof framing by means of spring clips. The roof sheets are placed over the sub-purlins so that the flanged-over edges of adjacent sheets fit side by side into the openings along the tops of the sub-purlins. The fabricated sheets are locked in place on the sub-purlins by bending the ends of reinforcing members under the top flanges of the sub-purlins.

This type of roof is not recommended for roofs of complicated design but for buildings having either flat or pitched straightaway roofs requiring light loads over long spans. Ferrodeck is being used on all Series "B" Buildings and, if desired, on Series "A" Buildings.

DESCRIPTIVE DATA

Sub-Purlins: 2″ x 2″, 18 gage.

Roof Sheets: {Standard} 2′ x 4′, either 18 or 20 gage.

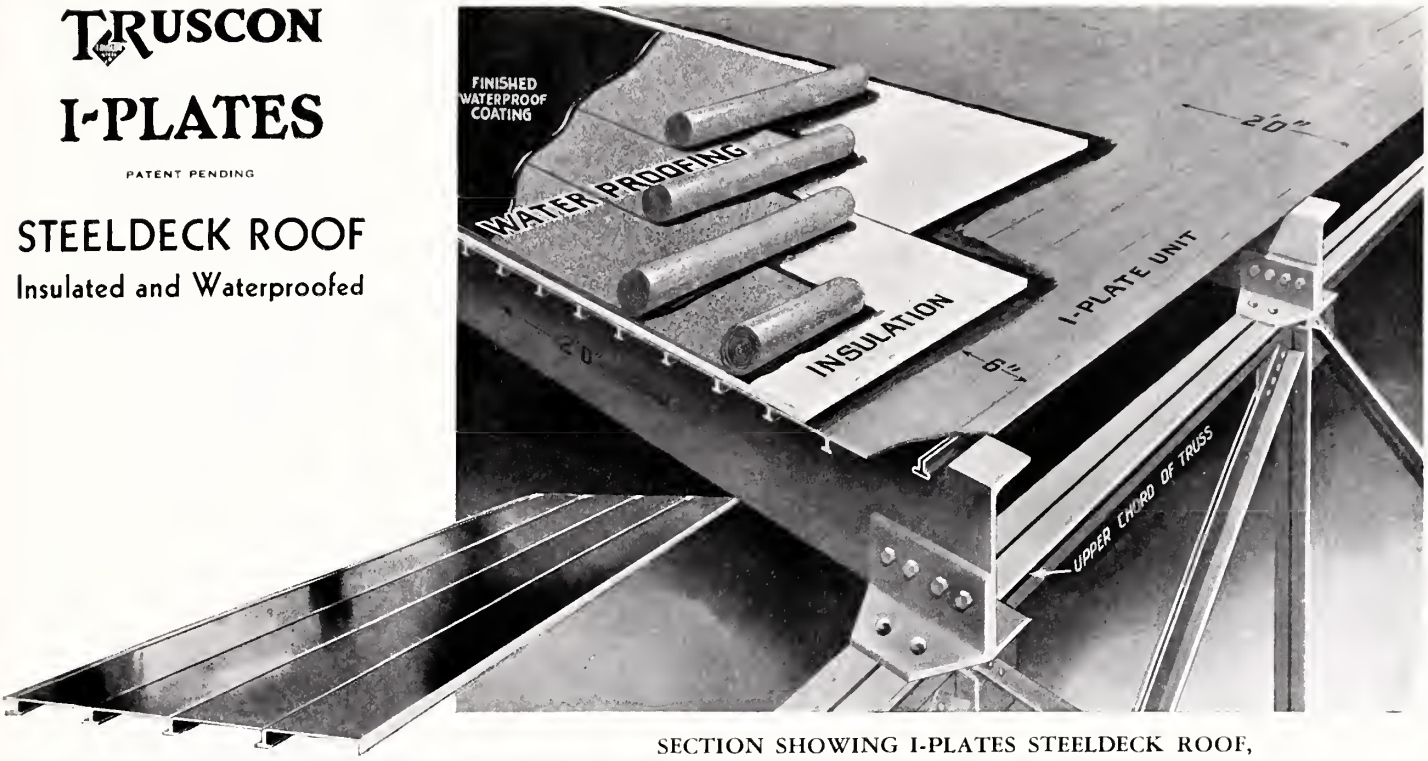
UNDERSIDE VIEW OF FERRODECK ROOF
An Industrial Plant Installation

TRUSCON I-PLATES

PATENT PENDING

STEELDECK ROOF

Insulated and Waterproofed



SECTION SHOWING I-PLATES STEELDECK ROOF, INSULATION AND BUILT-UP ROOFING

THE "I-Plates" Type of Truscon Steeldeck is a roof so formed that each sheet is a unit itself, capable of carrying loads between the members of the roof structure.

The "I-Plates" are manufactured of 18 gage and 20 gage steel sheets with "I-Sections" formed in the sheets longitudinally. On one outside edge a complete "I-Section" is formed; on the other a flange of about ½" is formed to fit down between the webs of the adjacent "I-Sections," giving a smooth finished surface.

I-Plates are applied directly over roof purlins and are spliced together by means of sleeve splice clips that telescope over the ends of the "I-Sections." The steeldeck is securely attached to roof purlins by clips that telescope over the "I-Sections" and wrap around the top flange of the purlins.

UNDERSIDE VIEW OF I-PLATE ROOF
Epstein Printing Company, Omaha, Neb.

DESCRIPTIVE DATA

Standard Width: 2′-0″ for 1-inch I-Plates.
1′-6″ for 1½-inch I-Plates.

Length of Plates: {Standard} 10′-0″ and 8′-0″.
Special as required, 10′-0″ maximum.

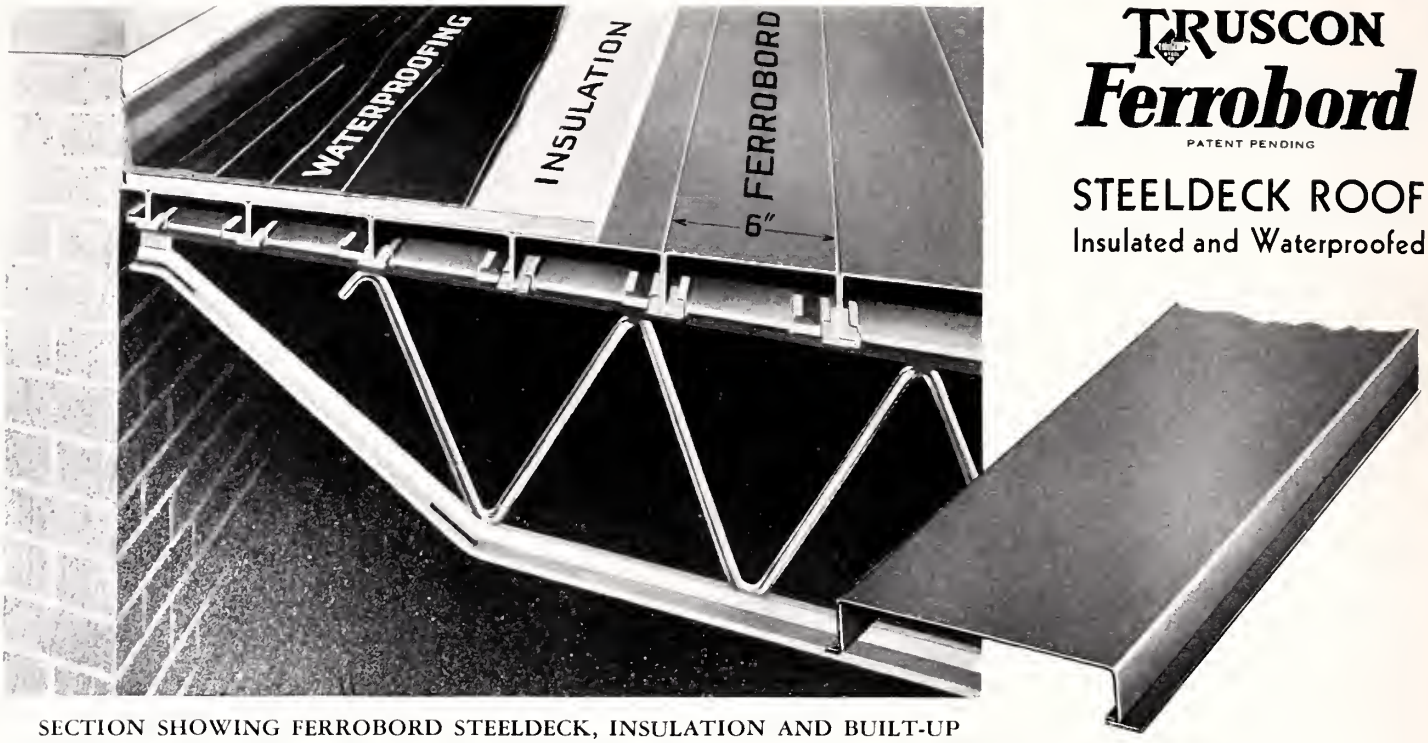
Dimensions of "I-Sections": Spaced, 6″ centers.
Depth, 1″ and 1½″.
Bottom flange width, ⅝″.

TRUSCON Ferrobord

PATENT PENDING

STEELDECK ROOF

Insulated and Waterproofed



SECTION SHOWING FERROBORD STEELDECK, INSULATION AND BUILT-UP ROOFING. "O-T" (OPEN TRUSS) JOISTS AS ROOF PURLINS

FERROBORD is rolled from 18 and 20 gage rust-resisting steel with a finished width of 6 inches, and depths of $1\frac{1}{4}$" and $1\frac{3}{4}$". A double flanged rib on the edge of one sheet interlocks with the single flange rib of the adjoining sheet forming structural supporting members at 6" intervals across the deck. The interlocked section gives a smooth finished roof surface.

Ferrobord is applied directly to the roof supporting steel and is securely fastened to the structural members with purlin clips that firmly lock the Ferrobord section together and clamp over the flanges of the structural roof members, holding the roof securely in place.

Purlin clips, capable of securely fastening the Ferrobord to the roof supporting steel under maximum loading conditions, insure positive connection to the main roof structure. Each purlin clip, located at 6" centers, has sufficient strength with a factor of safety, to prevent failure under any conditions.

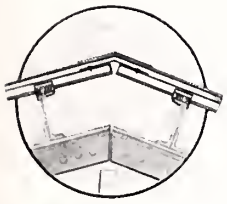
Butt clips securely join the ends of Ferrobord to present a smooth surface of Roofdeck to which the insulation and built-up roofing is applied.

Standard Width: 6 inches.
Length of Sheets: Rolled and cut to required lengths.
Dimensions of Sections: Spaced, 6" centers.
Depth, $1\frac{1}{4}$" and $1\frac{3}{4}$".
Bottom Flange width, $\frac{3}{4}$".
Gage: 18 and 20 U. S. Standard.

UNDERSIDE VIEW OF FERROBORD ROOF
Chevrolet Parts Building, Louisville, Ky.

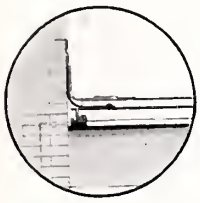
STEELDECK ROOFS

CONSTRUCTION DETAILS



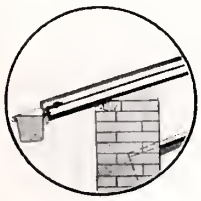
SECTION THROUGH RIDGE:

At this point the open ends of the two adjoining sheets forming the ridge are closed by applying a continuous ridge plate. This ridge plate is firmly held in place by two rows of sherardized screws, and forms a continuous surface of Roofdeck over the ridge, to which insulation and built-up roofing may be applied with permanence and rigidity.



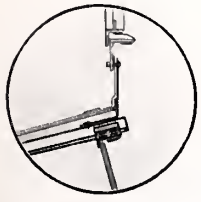
SECTION THROUGH PARAPET WALL:

Showing the Backing Plate held in place by one row of sherardized screws at the Roofdeck, and one row of masonry nails at the parapet wall. The word "backing" suggests the function of this accessory, in that it "backs up" the waterproofing felts, during and after their application, thus assuring a one hundred per cent fulfillment of the waterproofing guarantee.



SECTION SHOWING EAVE WITH GUTTER:

Illustrating the rigid construction obtained by fastening the gutter to the Roofdeck with sherardized screws, before the application of insulation and built-up roofing.

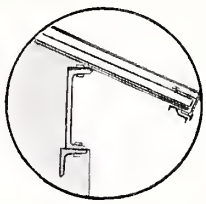


SECTION THROUGH BASE OF MONITOR WALL:

Showing the Backing Plate held in place with sherardized screws, and bolted to the monitor window supporting steel. Note the rigid support given to the roof flashings by the Backing Plate and mechanical fasteners.

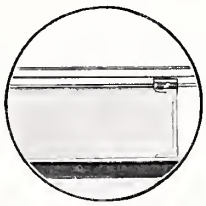
SECTION THROUGH GABLE OVERHANG:

Showing the Nailer Bead and Closing Plate forming an ideal gable construction. The Nailer Bead is fastened with sherardized screws to the Roofdeck and the Closing Plate extends from the Nailer Bead to the wood nailer located in the building wall, thus sealing the eave to meet all weather conditions. Note the felt cap of the built-up roofing mechanically fastened to the Nailer Bead with roofing nails, thus insuring a permanent and rigid gable construction.



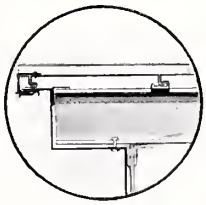
TYPICAL EAVE OVERHANG:

Illustrating the function of the Nailer Bead and Eave Closing Plate as outlined for Figure 5. Eave and gable overhang includes the use of these accessories for standard construction.



BUTT AND PURLIN CLIPS:

At the end Butt Joint Clips securely hold the Roofdeck sheets in place to present a smooth, even surface to which the insulation and built-up roofing is applied. At six-inch centers Purlin Clips fasten the Roofdeck securely to the purlins. These clips engage the supporting rib of the Roofdeck with the top flange of the supporting steel and hold the deck firmly in place.



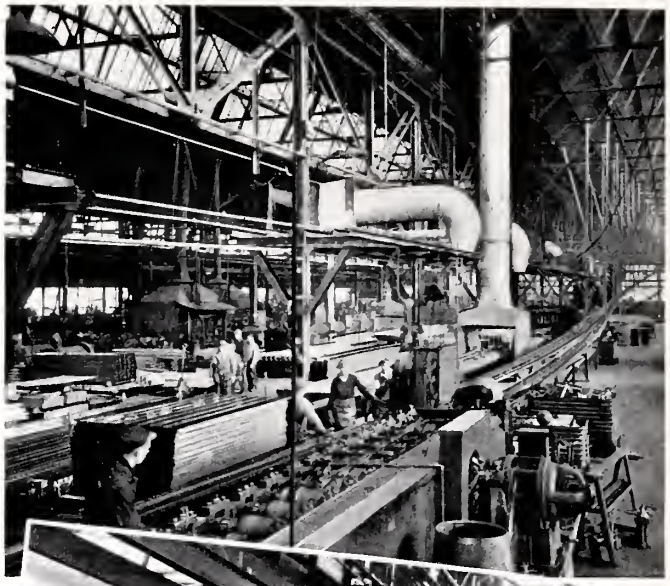
SECTION THROUGH GABLE OVERHANG:

Showing roof purlin extended beyond the building line with standard Nailer Bead and Gable Closing Plate securely screwed and bolted in place. Note the perfect seal of this gable construction against weather, as formed by these accessories securely interlocked and mechanically fastened.

WE FABRICATE ALL STANDARD PARTS

EACH separate part of every Truscon Building is standardized and manufactured in a plant fully equipped and organized to produce that part at the lowest possible cost consistent with quality. Special machinery, designed by Truscon experts and used exclusively by Truscon, is employed in their fabrication. Every effort is directed toward ultimate economy for the purchaser. Truscon Buildings are improved in appearance and design, stronger, more practical and more economical than ever before.

Truscon Buildings depend for their success upon the economies they effect for the user. If Truscon Buildings offer the customer a better value per dollar invested than any other appropriate construction it is because of the tremendous resources which Truscon draws upon in producing them. Truscon's fifty-acre plant at the heart of the steel industry is the largest in the world devoted to the manufacture of a complete line of steel building products.



1

2

3

1. Where Steeldeck Roofsheets are made. 2. Structural Steel Shop. 3. Window and Door Plant.

PRODUCTS MANUFACTURED BY TRUSCON ARE AS FOLLOWS:

Steel Window Products

Double-Hung Windows
Donovan Awning Type
Pivoted Windows
Utility Windows
Continuous Windows
Counterbalanced Windows
Projected Windows
Mechanical Operators
Steel Casements
Casement Screens
Basement Windows
Steel Frames
Pressed Steel Lintels
Door Frames and Trim
Coal Chutes

Steel Doors

Swing and Slide
Bi-Fold
Vertical Folding
Vertical Lift
Vertical Lift-Swing
Fire Department
Airplane Hangar

Steel Buildings

Flat Roof Types
Pitched Roof Types
Hangars
Structural Steel
Trusses

Steeldeck Roofs

Ferrodeck
I-Plates
Ferrobord

Metal Lath Products

A-Metal Laths and Hy-Ribs
Diamond Laths
Stucco Steel
Corner Beads
Cornerite
Strip-ite
Channels and Studs
Mortar Boxes
Metal Trim

Steel Joists

"P-G" Plate Girder Joists
"O-T" Open Truss Joists
Nailer Joists
Accessories
All Metal Floors

Reinforcing Steel

Rib Bars
Kahn Trussed Bars
Column Hooping
Steel Forms
Floretyles
Locktyle
Steel Inserts

Road Reinforcing

Welded Steel Fabric
Contraction Joints
Expansion Joints
Edge Protectors
Curb Bars
Steel Road Forms
Highway Guards

Steel Poles

Distribution Poles
Telephone Poles
H-Frames
Floodlight Towers
Pipe Line Supports
Electrification Structures

Pressed and Drawn Steel

Automobile and Truck
Frames and Parts
Heavy Sections Pressed Steel
to Specifications
Steel Boxes
Skid Platforms
Factory Trucks
Foundry Flasks and Accessories

Laboratory Products

Waterproofings
Technical Paints
Floor Hardeners
Cement Roofing Tile

TRUSCON BUILDINGS

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